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TAKING CHAOS SERIOUSLY: FROM ANALOG TO DIGITAL CONSTITUTIONALISM(S)

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Table of contents

1. Introduction: a chaotic constitutional environment 6
2. Ten vignettes of digital constitutionalism 19
2.1. The right to be forgotten 19
2.2. Public decision by algorithm 21
2.3. Politics in the digital age 24
2.4. Digital sovereignty 29
2.5. A constitutional charter of digital fundamental rights for France 33
2.6. State intervention in the digital environment 35
2.7. Neuronal autonomy 37
2.8. Crowdsourced constitutionalism 40
2.9. European digital constitutionalism 41
2.10. “Code is (constitutional) law” 45
3. Constitutional conundrum 49
3.1. Vignettes as loci for controversies 49
3.2. A multiplicity of taxonomies 50
3.3. Two core difficulties 52
3.3.1. The free speech puzzle 52
3.3.2. The banalisation of constitutional law puzzle 59
4. Protecting fundamental rights 61
4.1. Thin digital constitutionalism: classical fundamental rights confronting the digital age 61
4.1.1. New applications of classical fundamental rights 61
4.1.2. The horizontal effect of classical fundamental rights 65
4.2. Thick digital constitutionalism: new fundamental rights for the digital age 68
4.2.1. Piecemeal approaches 69
4.2.2. Magna Carta 2.0 72
5. Separating and limiting powers 79
5.1. The dismantling of the traditional separation of powers in the digital age 79
5.1.1. The impact of the digital on the three powers 79

5.1.2. The dissolution of the separation of powers in the digital environment: digital despotism? 92
5.2. Towards a new understanding of the digital (re)distribution of powers 96
5.2.1. Generalised constitutional heterarchy 96
5.2.2. Jeremy Bentham's suggestion: public opinion as a legal system 104
6. Ideological deconstruction of the constitutional lens 117
6.1. Digital constitutionalism's lack of neutrality 117
6.2. Three possible messages 118
6.2.1. A message of hope 118
6.2.2. A message of hegemony 120
6.2.3. Constitutionalism, in memoriam 128

"Technology is neither good nor bad; nor is it neutral."
Melvin Kranzberg, "Technology and History: 'Kranzberg's Laws'", Bulletin of Science, Technology & Society, Vol. 15(1), 1995, pp. 5-13, p. 5.

Abstract

In 1999, the Constitution of the "Republic of Chaos" recognised as a citizen "any biological or digital entity capable of thinking and desiring," as well as cyborgs and androids. All these entities must respect the principles of national sovereignty and democracy "which apply not just within the Abode of Chaos, an analog enclave super-imposed on the national territory of France and a gateway into Cyberspace, but also within the digital territory of the Republic of Chaos." As the topic of digital constitutionalism is gaining momentum, what could be read as a kind of joke should be taken seriously. Reviewing concrete examples, I propose to offer a cartography of the current uses of the grammar of constitutionalism to address technological evolutions and their impact on basic rights and contemporary governance. "Thin" digital constitutionalism emerges as an expansion of analog constitutionalism. It manifests itself in the private Charter of Human Rights and Principles for the Internet, the Brazilian 2014 Marco Civil da Internet [Lei 12.965/2014], or the Digital Rights Charter presented by the President of the Spanish Government in 2021. It consists of adapting notions such as free speech, equality, privacy, participation, or pluralism to the new tools the rights' holders use and the new threats that result from using them (mass surveillance, personal profiling, influencing elections, lack of literacy, etc.). "Thick" digital constitutionalism more originally corresponds to what Teubner presents as the self-constitutionalisation of social spheres. A hierarchy of norms, basic values, procedures for dispute resolution, etc. progressively develop. The creation of Bitnation in 2014 testifies to the relevance of social contract theory. Meta's Oversight Board, to which people can appeal if they disagree with decisions made about content on Facebook or Instagram mimics a constitutional court. Both perspectives account for the efforts digital constitutionalists make to ensure the two basic functions of constitutions: protecting fundamental rights and limiting power. From an epistemological perspective, constitutionalism appears as a specific way to frame social, political or moral issues. Three main readings allow the deconstruction of the possible ideological rationales for a conceptual transfer from the analog to the digital sphere. One is a discourse of hope, where the values of the XVIIIth century Revolutions are preserved. Another is a discourse of skepticism, where constitutionalism mostly appears as an insurance policy for public and private powers in search of legitimation. The last one is a discourse of hopelessness, based on Lassalle's thesis according to which whenever one party invokes a constitution as its battle cry, it is as if this power structure was already dead.

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1. Introduction: a chaotic constitutional environment

1. One famous motto of the global age, whose paternity is widely debated,[1] is "think global act local." Speaking of local, in a charming little village of about a thousand inhabitants called Saint-Romain-au-Mont-d'Or, in the countryside near Lyon, stands a strange building: the "Abode of Chaos".[2] Its facades, dominated by the colours red and black, are covered with paintings representing characters as diverse and opposed to each other as Mahmoud Ahmadinejad, Mikhail Gorbachev, Lenin, Gandhi, Fidel Castro, Bin Laden, or Sigmund Freud. Numerous slogans are also inscribed on the building and on the roofs of the various hangars, such as "no pasarán," "je ne meurs pas je me régénère," "qui sème la misère récolte la colère," "Le rêve est réalité," "Indignez-vous," or "la fin du monde approche." These apocalyptic walls contain such incongruous objects as carcasses of planes, boats, tanks, cars, cranes, a helicopter and giant skulls. In addition, they house, as well as being part of themselves, an artistic display of paintings, constructions, and monumental sculptures. This deliberate disorder is constantly changing, reinforcing the impression of instability. As one of the walls says, "chaos in progress." The purpose of the Abode of Chaos as a museum of contemporary art, as well as a space for artistic creation, is to express a critique of a number of political and intellectual practices by exposing disorder and encouraging the development of alternative thoughts at the dawn of the end of the world.

2. In political and legal terms, this ambition is reflected in the proclamation of a "Republic of Chaos," based on a constitution[3].

One can only be surprised to note that this text... does not precisely arouse the reader's astonishment. The reader immediately finds herself on familiar ground, since the Constitution of the Republic of Chaos, proclaimed on 9 September 2009 (09/09/09), consists of articles distributed under eleven headings. It sets out the fundamental principles in a preamble, before detailing the organisation of the presidency of the republic – entrusted to the "Supreme Digital Entity, being the expression of all the values and ambitions, regulated by the High Council of Sages of the Republic of Chaos," – the government and the lower house, and determines the status of international treaties and agreements and European law. Traditional notions such as sovereignty, citizenship, civil rights, the capacity of citizens, or the determination of crimes and of offenses are also included.

This document sometimes takes on the guise of an entertaining enterprise in the artistic disguise of legal language. Article 1 of the Constitution of the Republic of Chaos jokingly recognises as a citizen "any biological or digital entity capable of thinking and desiring," including cyborgs and androids. Under Article 4, they must respect the principles of

[1] See W. Gianinazzi, 'Penser global, agir local. Histoire d'une idée', *EcoRev'. Revue critique d'écologie politique*, no. 46 (Summer 2018), p. 24.
[2] See http://www.demeureduchaos.org/.
[3] See http://www.republiqueduchaos.org/.

national sovereignty and democracy "which apply not just within the Abode of Chaos, an analog enclave super-imposed on the national territory of France and a gateway into Cyberspace, but also within the digital territory of the Republic of Chaos." Article 2 also proclaims that "The Republic's motto shall be Liberty, Equality, Fraternity, Humanness."

3. But in the context of current constitutional transformations, precisely insofar as it is called a 'constitution', this strange document can be taken seriously beyond its appearance as a stylistic exercise. In this respect, the Constitution of the Republic of Chaos, far from being an amusing fantasy confined to its marginality, may well, in some respects, prove to be paradigmatic of extremely pronounced trends in current constitutionalism, which, in the international literature, is known as 'global constitutionalism'.

Indeed, there is nowadays a broad consensus that, from many points of view (cultural, political, social, economic, environmental, etc.), today's globalised world is undergoing increasingly rapid changes, which lead to a marked practical and theoretical discomfort. In this movement that makes individuals and human groups more interdependent in the face of new problems, global governance is also undergoing many changes. As Sol Picciotto summarises, traditional normative hierarchies have been destabilised; the strict distinctions between public and private law, hard and soft law, domestic and international law have become blurred; the functions of legal regulation have become more fragmented and technical, requiring the cooperation of complex networks of new types of legal actors.[4] Hence the necessity of new conceptual frameworks to find one's way in all this confusion.[5]

Among others,[6] the literature that has appeared under the label 'global constitutionalism' represents a major conceptual and theoretical effort to confront the way we are now governed globally, and to address issues such as the progressive construction of our future global society, the way power is exercised, functions, is constrained, the ends to which power is put, and so on. A considerable body of literature has emerged, culminating in various editorial collections,[7] and in the publication in 2012 of a new journal by Cambridge

[4] S. Picciotto, 'Constitutionalising Multi-Level Governance?' *International Journal of Constitutional Law*, Vol. 6 (2008), pp. 457-479.
[5] R. Domingo Oslé, *¿Qué es el Derecho global?,* 2nd edn (Thomson, 2008).
[6] D. Kennedy, 'The Mystery of Global Governance', in *Ruling the World. Constitutionalism, International Law, and Global Governance*, J.L Dunoff, and J.P Trachtman (Cambridge: Cambridge UP, 2009), pp. 37-68.
[7] See e.g. A. Fischer-Lescano, *Globalverfassung. Die Geltungsbegründung der Menschenrechte*, (Weilerswist: Velbrück Wissenschaft, 2005), 351 p. ; C.E.J. Schwöbel, *Global Constitutionalism in International Legal Perspective* (Leiden: Martinus Nijhoff, 2011), 205 p. ; T. Hochmann, 'Le constitutionnalisme global', in *Théories du droit global*, B. Frydman, G. Lewkowicz (Paris: Presses de Sciences Po, à paraître) ; T. Hochmann, 'Le constitutionnalisme global', *Revue française de droit constitutionnel*, n° 120 (2019), pp. 885-904 ; A.F. Lang and A. Wiener, *Handbook on Global Constitutionalism* (Cheltenham: Edward Elgar, 2017), 457 p. ; M. Belov, *Global Constitutionalism and Its Challenges to Westphalian Constitutional Law* (Oxford: Hart Publishing, 2018) 191 p. ; T. Suami, A. Peters, and D. Vanoverbeke, *Global Constitutionalism from European and East Asian Perspectives* (Cambridge: Cambridge UP, 2018), 607 p.; E. Stein, 'Lawyers, Judges and the Making of a Transnational Constitution', *American Journal of International Law*, Vol. 75 (1981), pp. 1-27 ; N. Tsagourias, *Transnational Constitutionalism. International and European Models*, Cambridge (New York: Cambridge UP, 2007) 377 p. ; P. Zumbansen, 'Carving Out Typologies. Accounting for Differences Accross Systems: Towards a Methodology of Transnational Constitutionalism', in *Oxford Handbook of Comparative Constitutional Law*, M. Rosenfeld and A. Sajo (Oxford: Oxford UP, 2012) pp. 75-97 ; P. Zumbansen, 'Varieties of Comparative and Global Constitutionalism: The Emergence of a Transnational Legal-Pluralist-Order', *Global Constitutionalism*, Vol. 1 (2012), pp. 16-52 ; B. Goderis and M. Versteeg, 'Transnational Constitutionalism', in *Social and Political Foundations of Constitutions*, D. Galligan and M. Versteeg (Cambridge : Cambridge UP, 2013), pp. 103-133; J.-R. Yeh and W.-C. Chang, 'The Emergence of Transnational Constitutionalism: Its Features, Challenges, and Solutions', *Penn State International LR*, Vol. 27 (2008), pp. 89-124; J.-L. Dunoff, and J.-P. Trachtman, *Ruling the World. Constitutionalism, International Law, and Global Governance* (Cambridge : Cambridge UP, 2009) ; G. Tusseau, *Debating Legal Pluralism and Constitutionalism: New Trajectories for Legal Theory in the Global Age*, coll. Ius Comparatum – Global Studies in Comparative Law, Vol. 41 (Springer Cham, 2020) 340 p.

specifically devoted to these issues, entitled *Global Constitutionalism. Human Rights, Democracy, Rule of Law*.

4. The main thesis of global constitutionalism is to separate the concept of constitution from the concept of state, whereas traditionally one could not go without the other. It is precisely this movement that the Constitution of the Republic of Chaos illustrates in a particularly suggestive way. According to its preamble,

> "In 2009, Nation-States are confronted with globalisation and its consequences.
> The processes underlying the gradual erosion of the political prerogatives of States, particularly in Europe, the reduced importance of geography, of territories, of frontiers, and of geo-political boundaries in a world of constantly increasing volumes of financial, commercial, and informational exchanges (essentially via the Internet) are rendering physical boundaries almost meaningless and are engendering the emergence of a global village (alluded to by the sociologist Marshall McLuhan) that is forcing the citizens of the world to rethink the concept of the Nation-State for the 21st century.
> In 2009, information technology allows the instantaneous transmission of data and is creating a kind of universal ubiquity. The extreme mobility of capital and the de-materialisation of the financial system plus the globalisation of the economy and the progressive removal of trade barriers – factors underlying the current global financial and economic crisis – have prompted numerous political commentators and historians to warn that the Nation-State as we know it is in "inexorable decline.
> The significance of physical space and geography is being eroded and has in many respects almost completely disappeared.
> In order to adapt to the geo-political mutations induced by the IT revolution and globalisation, the post-modern State must stop defining itself in terms of territory and sovereign authority. These are outdated concepts associated with the Westphalian order based on the principle of the absolute sovereignty of States over their national territories."

The Republic of Chaos does not pretend to be a proper State. It even tends to dismiss the very relevance of the State under the current circumstances. But this does not seem to deprive it of the possibility to talk, in a meaningful way, of its basic norm as a "constitution", thus offering an archetypical illustration of the most significant implications of global constitutionalism.

5. This creeping "constitution-talk" makes the province of constitutionalism and constitutional law indefinite. Contemporary State constitutionalism can be schematically characterised by the rise of a normative standpoint.[8] The constitution is understood as a norm, i.e. a kind of law prescribing what legal actors ought to do. As any other legal norm, a constitution cannot automatically prove effective. Only a specific enforcement device can ensure obedience to legal norms. In the ruling *Marbury v. Madison*,[9] John Marshall established the necessity of a jurisdictional guarantee of constitutions, thanks to which the constitution is truly the 'supreme law of the land'.[10]

[8] For the main trajectories of constitutionalism, see C.H. McIlwain, *Constitutionalism: Ancient and Modern* (Cornell UP, 1940) ; A. Bryk, *The Origins of Constitutional Government. Higher Law and the Sources of Judicial Review* (Wydawnictwo uniwersytetu jagiellońskiego, 1999) ; M. Loughlin 'What is Constitutionalisation?' in *The Twilight of Constitutionalism?*, P. Dobner and M. Loughlin (Oxford UP, 2010), pp. 47-69.
[9] Marbury v. Madison, 5 US 137 (1803)
[10] US Constitution, Article VI

From a formal point of view, it closes the legal order. Indeed, the constitution defines the characteristics that must be present in any other element of the system for it to belong to the system. Moreover, it is a superior legal norm, both regarding its capacity to derogate other norms and its capacity to resist derogation by other norms. From a substantial point of view, the constitution is regarded as the document in which to entrench the most important values, normative commitments, and principles the society wants to protect.

This paradigm of constitutionalism has conquered the globe, which is almost completely organised according to the following grammar: States, citizens, nations, sovereigns, representative organs, basic rights, constitutional review, and so on. Global constitutionalism is trying to break away from this paradigm. It does so by breaking the connection between the State and constitutionalism, and by expanding the scope of application of terms like "constitution," "constitutionalisation," "constitutionalism," "constitutional rights," "*pouvoir constituant*," "constitutional review," or "constitutional order."[11]

6. In this respect, the Constitution of the Republic of Chaos is indicative of the emergence and development of a "constitutional discourse" in which new legal objects, in new contexts, are analysed in terms of constitutional institutions, constitutionalisation, constitutionalism, and so on. For example, it is not exceptional for international constitutionalisms, supranational constitutionalisms or transnational constitutionalisms to be identified.[12]

A supra-state constitutionalism is emerging as more and more international human rights norms acquire constitutional substance.[13] In many respects, they overlap with jus cogens norms which, at the top of the pyramid of international norms, give the international legal system the formal architecture of a constitutional order.[14] Several authors do not hesitate to consider the UN Charter as a world constitution,[15] while the European Court of Human Rights and the Court of Justice of the European Union present themselves

[11] N. Walker 'Taking Constitutionalism Beyond the State', *Political Studies*, Vol. 56 (2008), pp. 519-543.

[12] J.-L. Dunoff, and J.-P. Trachtman, *Ruling the World. Constitutionalism, International Law, and Global Governance* (Cambridge : Cambridge UP, 2009) ; N. Krisch, *Beyond Constitutionalism. The Pluralist Structure of Postnational Law,* (Oxford : Oxford UP, 2011) ; A. Fischer-Lescano, *Globalverfassung. Die Geltungsbegründung der Menschenrechte*, (Weilerswist: Velbrück Wissenschaft, 2005), 351 p. ; A.F. Lang and A. Wiener, *Handbook on Global Constitutionalism* (Cheltenham: Edward Elgar, 2017), 457 p. ; C.E.J. Schwöbel, *Global Constitutionalism in International Legal Perspective* (Leiden: Martinus Nijhoff, 2011), 205 p. ; E. Stein, 'Lawyers, Judges and the Making of a Transnational Constitution', *American Journal of International Law*, Vol. 75 (1981), pp. 1-27 ; M. Neves, *Transconstitucionalismo* (São Paulo : W.M.F. Martins Fontes, 2009), ; L.F.M. Besselink, *A Composite European Constitution*, (Groningen : Kluwer, 2007) ; G. Tusseau, *Debating Legal Pluralism and Constitutionalism: New Trajectories for Legal Theory in the Global Age*, coll. Ius Comparatum – Global Studies in Comparative Law, Vol. 41 (Springer Cham, 2020), 340 p. ; G. Teubner, 'Globale Zivilverfassungen: Alternativen zur staatszentrierten Verfassungstheorie', *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht*, no. 63 (2003), pp. 1-28; N. Walker, 'Le constitutionnalisme multiniveaux' *in Traité international de droit constitutionnel*, Vol. 3, M. Troper and D. Chagnollaud D. (Paris: Dalloz, 2003), pp. 441-462.

[13] S. Kadelbach and T. Kleinlein, 'Überstaatliches Verfassungsrecht', *Archiv der Völkerrechts*, Vol. 44 (2006), pp. 235-266 ; R. St. J. Macdonald and D.M. Johnston *Towards World Constitutionalism. Issues in the Legal Ordering of the World Community* (Leiden: M. Nijhoff, 2005).

[14] 1959 Vienna Convention on the Law of Treaties, Art. 53 ; A. Orakhelashvili, 'Peremptory Norms as an Aspect of Constitutionalisation in the International Legal System', in *The Dynamics of Constitutionalism in the Age of Globalisation*, M. Frishman and S. Muller (The Hague : Hague Academic Press, 2010), pp. 153-180.

[15] B. Fassbender, *The United Nations Charter as the Constitution of the International Community* (Leiden: M. Nijhoff, 2009) ; P.-M. Dupuy, 'The Constitutional Dimension of the Charter of the United Nations Revisited', *Max Planck Yearbook of United Nations Law*, Vol. 1 (1997), pp. 1-33 ; M.W. Doyle, 'The UN Charter – A Global Constitution?', in *Ruling the World. Constitutionalism, International Law, and Global Governance* J.-L. Dunoff, and J.-P. Trachtman (Cambridge : Cambridge UP, 2009) pp. 113-132.

respectively as agents of a 'constitutional instrument of European public order,"[16] of "the basic constitutional charter which is the Treaty"[17] or the "constitutional framework" of the European Union.[18]

Even more remarkable is the emergence of spontaneous forms of constitutionalisation. Gunther Teubner identifies several forms in various sectors of activity (economy, health, tourism, sport, culture, new technologies, etc.),[19] and notes that "here we are [...] with a curious phenomenon - that of 'self-constitutionalisation without a state'. Sectors of global society are beginning to develop, step by step, their own constitutional norms. Pressing social problems within self-governing world systems generate social conflicts, which result in legal norms with constitutional properties. These norms are then aggregated, over time, into sectoral constitutions of the global society."[20] These spheres maintain stable relationships, agree on standards of conduct and conflict resolution, develop fundamental principles to which the rest of their decisions are subject, and resolve their conflicts in a way that approaches a jurisdictional process.[21] Important parts of the lex mercatoria, the lex petrolea, or the lex constructionis, are thus revealed as real "legal systems". Thus, they turn out to be genuine "transnational corporate constitutions."[22]

Supranational, transnational or subnational constitutions thus meet the definition of Article 16 of the Declaration of the Rights of Man and of the Citizen, according to which "Any society in which no provision is made for guaranteeing rights or for determining the separation of powers, has no Constitution." These norms first claim a formal and substantial primacy in their own legal sphere. They assert their independence and autonomy from other legal spheres. This is why these constitutional orders are not in a hierarchical relationship with each other, but in a "heterarchical" relationship. The situation becomes even more

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[16] ECHR, 23 March 1995, Loizidou v. Turkey (Preliminary Objections) (no. 15318/89), § 75 ; C. Walter, Die Europäische Menschenrechtskonvention als Konstitutionalisierungsprozess, *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht*, Vol 59 (1999), pp. 961-983.

[17] ECJ, 23 April 1986, Green Party v. European Parliament (aff. 294/83), § 23.

[18] CJEU, 18 December 2014, Opinion 2/13, Accession of the EU to the ECHR, § 158 ; J.H. Weiler, *The Constitution of Europe. 'Do the New Clothes Have an Emperor?' and Other Essays on European Integration* (Cambridge: Cambridge UP, 1999) ; J.H. Weiler and M. Wind, *European Constitutionalism Beyond the State* (Cambridge: Cambridge UP, 2003) ; J.H. Weiler, 'Federalism and Constitutionalism: Europe's Sonderweg', *Jean Monnet Chair Working Paper,* n° 10/00 (2000), available at : https://jeanmonnetprogram.org/archive/papers/00/001001.html (accessed November 2021) ; R. Schütze, *European Constitutional Law* (New York: Cambridge UP, 2012) ; A. Rosas and L. Armati, *EU Constitutional Law. An Introduction*, 2nd ed. (Oxford: Hart Publishing, 2012) ; A. Von Bogdandy and J. Bast, *Principles of European Constitutional Law*, 2nd ed. (Oxford, Porland: Hart Publishing, München: C.H. Beck, 2010) ; P.-E. Pignarre, *La Cour de justice de l'Union européenne, juridiction constitutionnelle* (Bruxelles: Bruylant, 2021), 914 p. ; F. Fabbrini and M. Poiares Maduro, 'Supranational Constitutional Courts', *Max Planck Encyclopedia of Comparative Constitutional Law* (2016), available at: https://oxcon.ouplaw.com/view/10.1093/law-mpeccol/law-mpeccol-e676?prd=MPECCOL (accessed January 2021) ; D. O'Keeffe and A. Bavasso, *Judicial Review in European Union Law. Liber Amicorum in Honour of Lord Slynn of Hadley* (The Hague, London, Boston : Kluwer Law International, 2000) 674 p. ; J. Rinze, 'The Role of the European Court of Justice as a Federal Constitutional Court', *Public Law* (1993) pp. 426-443 ; O. Vesterdorf, 'A Constitutional Court for the EU?', *International Journal of Constitutional Law*, Vol. 4 (2006) pp. 607-617 ; A.J. Noll, *Internationale Verfassungsgerichtsbarkeit. Fragen der Verfassungsgerichtsbarkeit in Grossbritannien, der USA, Frankreich, Italien und Japan* (Wien:Verl. der Österr. Staatsdr., 1992), 126 p.

[19] G. Teubner, 'Societal Constitutionalism: Alternatives to State-Centred Constitutional Theory?', in *Transnational Governance and Constitutionalism*, C. Joerges, I.-J. Sand and G. Teubner (Oxford, Portland: Hart Publishing, 2004), pp. 3-28.

[20] G. Teubner, Constitutionalising Polycontexturality (2010), p. 14, available at : http://www.jura.uni-frankfurt.de/42852930/ConstitutionalisingPolycontexturality_eng.pdf (accessed November 2021).

[21] H. Schepel, *The Constitution of Private Governance. Product Standards in the Regulation of Integrated Markets (*Oxford, Portland : Hart O-Publishing, 2005) ; V. Ferreres Comella, *The Constitution of Arbitration* (Cambridge, New York: Cambridge UP, 2021).

[22] G. Teubner, 'Self-Constitutionalizing TNCs? On the Linkage of 'Private' and 'Public' Corporate Codes of Conduct', *Indiana Journal of Global Legal Studies,* Vol. 18-2 (Indiana University Maurer School of Law, summer 2011), available at : https://www.jura.uni-frankfurt.de/42852833/CSR_conference_bremen.pdf (accessed November 2021). See also G. Teubner and A. Golia, 'Societal Constitutionalism in the Digital World: An Introduction', *Max Planck Institute for Comparative Public Law & International Law Research Paper,* No. 2023-11, (May 1, 2023), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4433988

complicated when some of these constitutional spheres assert what Pedro Cruz Villalón presents as forms of "metaconstitutionality".[23] This terminology refers to the ability of one constitutional order to demand compliance with its own requirements from another, but often the latter order may also make metaconstitutional claims on the former. The vast majority of legal scholars tend to resort to the metaphor of constitutional dialogues to account for these interactions.[24] Joseph Weiler thus praises "the current constitutional architecture, which [...] embodies one of the most important constitutional innovations in Europe: the Principle of Constitutional Tolerance."[25] The fact that the same problem of limiting power or protecting human rights has to be addressed at different constitutional levels implies cooperation. Each of the constitutional actors involved incorporates part of the way the other is used to dealing with legal issues, according to its own "software". In this way, a partially common and transversal rationality of cooperation, openness and progressive harmonisation emerges for the benefit of shared values.[26]

The perspective of constitutional dialogues is not without limitations,[27] as transconstitutional conflicts, although not abundant, are not exceptional.[28] This analysis nevertheless shows a shift in constitutional supremacy. Whereas traditionally the constitution was understood as the supreme law of the land, it is finally no longer so, as competing social spheres claim a similar self-description and make sure to situate themselves in a heterarchical relationship to each other. The legitimating force of the discourse of constitutional law is precisely its weakness, in that it is the diffusion of this regime of enunciation of the organisation of society, because it is particularly prised, that leads to a levelling of its claim to hegemony.

7. This is the reason why the Constitution of the Republic of Chaos, which at the time appeared as nothing more than a joke, should now, in allusion to the writings of one of the most famous scholars who devoted vast parts of his work to the elucidation of contemporary constitutionalism,[29] be "taken seriously." Indeed, the topic of "digital constitutionalism" has

[23] P. Cruz Villalón, *La constitucion inedita. Estudios ante la constitucionalización de Europa* (Madrid : Trotta, 2004), p. 73.
[24] See e.g. Vv. Aa, *Le dialogue des juges. Mélanges en l'honneur du président Bruno Genevois* (Paris : Dalloz 2009) ; H. Nogueira Alcalá, *Diálogo judicial multinivel y principios interpretativos favor persona y de proporcionalidad* (Santiago de Chile, Librotecnia, Talca: Centro de Estudios Constitucionales de Chile, Universidad de Talca, 2013) ; L. Burgorgue-Larsen, *El diálogo judicial. Máximo desafío de los tiempos jurídicos modernos* (México: Porrúa Instituto mexicano de derecho procesal constitucional, 2013) ; A. Meuwese and M. Snel, 'Constitutional Dialogue: An Overview', *Utrecht Law Review*, Vol. 9 (2013) pp. 123-140 ; S. Menétrey and B. Hess, *Les dialogues des juges en Europe* (Bruxelles, Larcier : 2013).
[25] J.H. Weiler, 'Federalism and Constitutionalism: Europe's Sonderweg', *Jean Monnet Chair Working Paper,* n° 10/00 (2000), p. 10, available at : https://jeanmonnetprogram.org/archive/papers/00/001001.html (accessed November 2021).
[26] M. Neves, *Transconstitucionalismo* (São Paulo: W.M.F. Martins Fontes, 2009), p. 118.
[27] H. Muir Watt and G. Tusseau, 'Repenser le dévoilement de l'idéologie juridique : une approche fictionnelle de la gouvernance globale' in *Traité des rapports entre ordres juridiques*, B. Bonnet (Paris: LGDJ, 2016) pp. 169-219 ; G. Tusseau, '« Irregulare aliquod et (tantum non) monstro simile » : remarques sur les heurs et malheurs des dialogues juridictionnels transconstitutionnels', in *Rencontre franco-japonaise autour des transferts de concepts juridiques*, P. Brunet, K. Hasegawa and H. Yamamoto (Paris: Mare & Martin, 2014), pp. 97-140 ; G. Tusseau, *Debating Legal Pluralism and Constitutionalism: New Trajectories for Legal Theory in the Global Age*, coll. Ius Comparatum – Global Studies in Comparative Law, Vol. 41 (Springer Cham, 2020), 340 p. ; G. Tusseau, *Contentieux constitutionnel comparé. Une introduction critique au droit processuel constitutionnel* (Paris La Défense: Lextenso, 2021) pp. 762-786 and 810-825.
[28] G. Tusseau, '« Irregulare aliquod et (tantum non) monstro simile » : remarques sur les heurs et malheurs des dialogues juridictionnels transconstitutionnels', in *Rencontre franco-japonaise autour des transferts de concepts juridiques*, P. Brunet, K. Hasegawa and H. Yamamoto (Paris: Mare & Martin, 2014), pp. 97-140 ; G. Tusseau, *Contentieux constitutionnel comparé. Une introduction critique au droit processuel constitutionnel* (Paris La Défense: Lextenso, 2021) pp. 762-786 and 810-825.

[29] R. Dworkin, *Taking Rights Seriously* (Cambridge: Harvard University Press, 1977).

recently been gaining momentum. This expression, which appears as a specification of "lex digitalis,"[30] or "computational law"[31] is increasingly widely used in order to capture specific sets of phenomena, to address the concern they raise, to propose ways to conceptualise them, or to meet the challenges they occasion.

Digital constitutionalism seems to be the most recent step in the expansion of non-state constitutionalism, and the most pervasive of a vast multiplicity of non-state constitutionalisms, as the digital's presence in our daily lives is so overwhelming that it goes unnoticed.[32] As Nicolas Suzor for example notices,

> "Technology companies exercise an unprecedented degree of power over how we share information, who we communicate with, and what news we see. Search engines have a massive degree of influence over the information we find and how we connect with other individuals and businesses. Social media platforms like Facebook, Twitter, YouTube, and Instagram constantly make decisions that directly influence what we can see and share. Infrastructure companies can prioritize certain types of internet traffic and block access to services and websites. Hosting companies store the websites, files, and documents we share and make them available to the world. These companies 'govern' our online social lives."[33]

Just to take an immediate (although a bit self-referential) example, which is by no means illustrative of all the dimensions of digital society,[34] this article is written with a computer, using a specific writing software. Most of the references to prepare it have been found thanks to research on the digital catalogues of libraries and on search engines. The results this research engine has displayed have been ranked by an algorithm. Papers have been downloaded through the Library's online catalogue from databases of academic journals. Books have been bought on websites. The paper is sent to colleagues for reading through emails. It is safeguarded on a cloud so as to be accessible on another computer everywhere on earth, as well as on a smartphone. The prepublication version will be uploaded to an academic digital repository. Its publication will be advertised on social networks, and so on.

Other examples of the digitalisation of private life abound: Internet of things,[35] self-driving cars, health (smart blood), robot-assisted surgery,[36] etc. Such is also the case for

[30] E. Celeste, *Costituzionalismo digitale e piattaforme: verso una costituzionalizzazione della lex digitalis* (2021), available at : http://doras.dcu.ie/27787/1/Celeste_Constitutionalismo%20digitale%20e%20piattaforme_AM.pdf.
[31] A. Andhov, *Computational Law: The lawyer's guide to digital technology* (København: Karnov Group, 2022).
[32] E. Celeste, *Digital Constitutionalism: The Role of Internet Bills of Rights* (Abingdon, New York: Routledge, 2023) p. 1.
[33] N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019) p. 8.
[34] See e.g. K. Braun and C. Kropp, *In digitaler Gesellschaft. Neukonfigurationen zwischen Robotern, Algorithmen und Usern* (Bielefeld: Transcript Verlag, 2021), available at : https://www.transcript-verlag.de/media/pdf/a1/ee/13/oa9783839454534.pdf
[35] See e.g. G. Rosner and E. Kenneally, *Clearly Opaque: Privacy Risks of the Internet of Things* (IoT Privacy Forum, 2018), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3320656#:~:text=The%20IoT%20has%20the%20potential,of%20the%20risk%20of%20surveillance ; G. Rosner and E. Kenneally, *Privacy and the Internet of Things. Emerging Frameworks for Policy and Design*, (UC Berkeley Center for Long-Term Cybersecurity Occasional White Paper Series, 2018), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3320670 ; F. Allhoff and A. Henschke, 'The Internet of Things: Foundational Ethical Issues', *Internet of Things*, Vol. 1-2 (2018), pp. 55-66 ; C. Vande Maelen, E. Lievens, J. Vermeulen and I. Milkaite, 'AI and Data Protection; The Case of Smart Home Assistants', in *Artificial Intelligence and the Law*, J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago : Intersentia, 2021) pp. 173-206.
[36] W. Buelens, 'Robots and AI in the Healthcare Sector: Potential Existing Legal Safeguards Against A(n) (Un)justified Fear for "Dehumanisation" of the Physician-Patient Relationship', in *Artificial Intelligence and the Law,* J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 487-520.

public issues like defense (lethal autonomous weapons, drones),[37] security (cameras, facial recognition,[38] predictive policing),[39] political elections (voting machines), automated fining for breaking traffic or parking regulations, and so on. During the pandemic, after the Global Centre for Information and Communication Technologies in Parliament associating the Interparliamentary Union and the United Nations started developing an interest in technologies and parliamentary activities,[40] major political institutions have had to organise meetings online.[41] The Inter-Parliamentary Union released a "Quick Guide" for parliaments on digitalization, remote working and virtual meetings.[42] Some Parliaments have even permanently revised their standing orders to allow for this kind of procedure. In Japan, in March 2022, the House of Representatives decided that Article 56 of the Constitution, which regulates the conditions for its deliberations, can be interpreted so as to allow for online meetings in case of emergency.[43] In Chile, the Constitution was amended in order to allow for online parliamentary meetings and law-making. Pursuant to the 32nd Transitory Provision,

> "Hasta por el plazo de dos años a contar de la publicación de la presente reforma, y por la actual pandemia de COVID-19, la Cámara de Diputados, el Senado y el Congreso Pleno, este último para efectos de lo dispuesto en los artículos 24 y 56 bis, podrán funcionar por medios telemáticos una vez declarada una cuarentena sanitaria o un estado de excepción constitucional por calamidad pública que signifique grave riesgo para la salud o vida de los habitantes del país o de una o más regiones, que les impida sesionar, total o parcialmente, y mientras este impedimento subsista. Para las sesiones de las cámaras se requerirá el acuerdo de los Comités que representen a los dos tercios de los integrantes de la respectiva cámara. Ellas podrán sesionar, votar proyectos de ley y de reforma constitucional y ejercer sus facultades exclusivas. El procedimiento telemático deberá asegurar que el voto de los parlamentarios sea personal, fundado e indelegable. En los casos del Congreso Pleno, a que se refiere el inciso primero, los Presidentes de ambas Corporaciones acordarán la dependencia del Congreso Nacional en la que se cumplirán estas obligaciones, quiénes podrán concurrir presencialmente a esas sesiones y si éstas deben realizarse de manera total o parcialmente telemática. La cuenta del estado administrativo y político de la Nación ante el Congreso Pleno a que se refiere el inciso tercero del artículo 24, el año 2020 se realizará el día 31 de julio."

As is evident from the foregoing (appositely chaotic) list of examples, I propose to endorse a broad conception of the digital, which may seem rather impressionistic to specialists.

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[37] A. Seixas-Nunes, *The Legality and Accountability of Autonomous Weapon Systems. A Humanitarian Law Perspective* (2022) ; S. Van Severen and C. Vander Maelen, 'Killer Robots: Lethal Autonomous Weapons and International Law', in in *Artificial Intelligence and the Law,* J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 151-172 ; R. Mignot-Mahdavi, *Drones and International Law. A Techno-legal Machinery* (Cambridge UP, 2023) ; R. J. González, 'Militarising Big Tech. The Rise of Silicon Valley's Digital Defence Industry' (7 February 2023), available at : https://www.tni.org/en/article/militarising-big-tech

[38] M. Andrejevic and N. Selwyn, *Facial Recognition* (Polity, 2022).

[39] See e.g. M. Ruiz Dorado, *Constitución y espionaje. Un estudio comparado de algunos sistemas gubernamentales de interceptación de España e Italia* (Valencia : Tirant lo Blanch, 2022) 380 p.

[40] See http://archive.ipu.org/dem-f/parl-ict.htm.

[41] O. Rozenberg, 'Post-Pandemic Legislatures: Is Real Democracy Possible with Virtual Parliaments?', *ELF Discussion Paper,* no. 2 (European Liberal Forum, 2020), available at : https://archive.liberalforum.eu/publications/post-pandemic-legislatures-is-real-democracy-possible-with-virtual-parliaments/ ; Inter-Parliamentary Union, *World e-Parliament. Report 2022. Parliaments after the pandemic* (2022), available at : https://www.ipu.org/resources/publications/reports/2022-11/world-e-parliament-report-2022 ; F. Duverger, 'Crise sanitaire et dématérialisation de la fonction législative au Parlement européen', in *Gouverner et juger en période de crise*, X. Dupré de Boulois, and X. Philippe (Paris: Mare & Martin, 2023) pp. 37-51.

[42] See https://www.ipu.org/innovation-tracker/story/quick-guides-parliaments-digitalization-remote-working-and-virtual-meetings

[43] Japanese Lawmakers Agree on Online Parliamentary Attendance (3 March 2022), available athttps://sp.m.jiji.com/english/show/18333.

The ubiquity of computers, websites, social networks, artificial intelligence,[44] clouds, etc. gives the measure of what is at stake when one addresses the topic of digital constitutionalism. As it addresses the very medium through which most of the other constitutional actors operate and relate to their citizens, as well as the means through which their citizens interact with one another, the topic of digital constitutionalism appears to be even more compelling. It seems to exist on another stage, to be located on a deeper level that somehow impacts or conditions all the others, or to be intertwined within the very texture of the other forms of governance, so as to have an influence both on their architecture and on their functioning.[45] If one decides to follow Ferdinand Lassalle's approach of constitutions, one should indeed lay the emphasis on the fundamental causes from which the current legal situation results. According to the Prussian author,

> "Therefore, if a constitution is the basic law of the land, then it is something which we must define in greater detail, or as we have already discovered, it must be an active force which necessarily makes all other laws and juridical institutions in the land what they are, so that henceforth absolutely no other laws than just these can be passed."[46]

For him, the ultimate explanation followed from a materialist perspective:

> "Now, is there something in the nation, gentlemen – and with this question a full light gradually begins to break – is there in the nation something, some active force which is capable of exerting an influence upon all laws passed in the nation in such a way as to make them by and large what they are, necessarily so and not otherwise? Of course, gentlemen, there is something like it, and this something is nothing else but – the actual relation of forces existing in a given society."

Although digitalism takes one a bit far from materialism, one may retain the idea that what is constitutional is the basis for what exists. In this perspective, the digital phenomena and environment obviously have an influence on many other aspects of our social life, so as to be susceptible of being apprehended in constitutional terms.

8. This is why one may approve Edoardo Celeste's claim that we are currently experiencing no less than a "constitutional moment."[47] Digital constitutionalism may not be regarded only as a new avatar of an expansive linguistic habit that has led from state constitutionalism, i.e. constitutionalism without an adjective, to increasingly subdetermined, adjectivised, constitutionalisms. No uniform understanding of digital constitutionalism seems

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[44] According to the High-Level Expert Group on Artificial Intelligence, *A Definition of AI: Main Capabilities and Scientific Disciplines* (2018), p.7, available at : https://ec.europa.eu/futurium/en/system/files/ged/ai_hleg_definition_of_ai_18_december_1.pdf, *"Artificial intelligence (AI) refers to systems designed by humans that, given a complex goal, act in the physical or digital world by perceiving their environment, interpreting the collected structured or unstructured data, reasoning on the knowledge derived from this data and deciding the best action(s) to take (according to pre-defined parameters) to achieve the given goal. AI systems can also be designed to learn to adapt their behaviour by analysing how the environment is affected by their previous actions. As a scientific discipline, AI includes several approaches and techniques, such as machine learning (of which deep learning and reinforcement learning are specific examples), machine reasoning (which includes planning, scheduling, knowledge representation and reasoning, search, and optimization), and robotics (which includes control, perception, sensors and actuators, as well as the integration of all other techniques into cyber-physical systems)."* For a general presentation, see e.g. S. J. Russell and Peter Norvig, *Artificial intelligence: A Modern Approach*, 4th ed. (Harlow: Pearson, 2022).

[45] See similarly regarding software : B. Fitzgerald, 'Software as Discourse: The Power of Intellectual Property in Digital Architecture', *Cardozo Arts & Entertainment Law Journal*, Vol. 18 (2000), p. 337.

[46] F. Lassalle, 'On the Essence of Constitutions' (Speech Delivered in Berlin, April 16, 1862), available at : https://www.marxists.org/history/etol/newspape/fi/vol03/no01/lassalle.htm

[47] E.Celeste, 'Digital Constitutionalism. Mapping the Constitutional Response to Digital Technology's Challenges', *HIIG Discussion Paper Series*, No. 2018-2 (July 2018), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3219905 ; E. Celeste, *Digital Constitutionalism: The Role of Internet Bills of Rights*, (Abingdon, New York: Routledge, 2023) pp. 5-24. See also M. Zalnieriute, 'An international constitutional moment for data privacy in the times of mass-surveillance', *International Journal of Law and Information Technology*, Vol. 23-2 (2015), 99-133.

to exist[48] since the first hints at this conceptualisation appeared.[49] Some want to constitutionalise the digital, whereas other propose to digitalise the constitutional.

As a linguistic fact, constitution-talk is linked to specific ways to look at the world. In this sense, one can fruitfully start from regarding constitutionalism as a "mindset"[50], a "prism",[51] or a "reading,"[52] i.e. an approach, an intellectual frame for organising and analysing specific situations. As socioepistemologists have made clear, there is no way to look at something without a purpose. This is why David Kennedy insists that this frame of intelligibility is by no means neutral nor disinterested, but is on the contrary part of intellectual, social, political, cultural, etc. *projects*.[53] In this respect, for example, Giovanni De Gregorio claims that:

> "Despite the temporal gap between eighteenth-century constitutionalism and twenty-first-century technology, the adjective "digital" implies the collocation of constitutionalism in a temporal and material dimension. Digital constitutionalism refers to a specific timeframe evolving in the wake of the global diffusion of the web in the 1990s. Moreover, from a material perspective, this adjective leads to focusing on how digital technologies and constitutionalism affect one another. Therefore, the merging of the expressions "digital" and "constitutionalism" leads to a new theoretical and practical field based on a dynamic dialectic between how digital technologies affect the evolution of constitutionalism and the reaction of constitutional law against the power emerging from digital technologies implemented by public and private actors."[54]

From a slightly different perspective, Suzor is adamant that

> "This is the project of digital constitutionalism: to rethink how the exercise of power ought to be limited (made legitimate) in the digital age. The task of identify and developing social, technical, and legal approaches that can improve the legitimacy of online governance is an increasingly pressing issue. The rationale for extending principles of good governance and human rights to private platforms lies in an increasing recognition of the important role that platforms play in mediating communication."[55]

Not limiting his analysis to taking stock of what happens, he further proposes to make the current circumstances a springboard for political change: "We are now at a constitutional moment, a time of profound potential change, where we all have an opportunity to demand more from those who rule over our digital lives."[56]

The possible ambitions of such a framework are also perfectly expressed by the European Parliament in relation to artificial intelligence:

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[48] N. Shengelia, 'Fundamental Rights and Eroding Constitutionalism', *E-Journal of Law*, Vol. 7 (2021), pp. 119-145 ; R. Á. Costello, 'Faux Ami? Interrogating the Normative Coherence of "Digital Constitutionalism" ', *Global Constitutionalism*, Vol. 12, (2023) pp. 326-349.

[49] See B. Fitzgerald, 'Software as Discourse? The Challenge of Information Law', *European Intellectual Property Review*, Vol. 22 (2000), pp. 47-55 ; B. Fitzgerald, ''Software as Discourse – A Constitutionalism for Information Society', *Alternative Law Journal*, Vol. 24 (1999), pp. 144-149 ; B. Fitzgerald, 'Software as Discourse: The Power of Intellectual Property in Digital Architecture', *Cardozo Arts & Entertainment Law Journal*, Vol. 18 (2000), p. 337.

[50] M. Koskenniemi 'Constitutionalism as Mindset: Reflections on Kantian Themes About International Law and Globalization', *Theoretical Inquiries in Law*, Vol. 8-1 (2007) ; E. Celeste, 'Terms of Service and Bills of Rights: New Mechanisms of Constitutionalisation in the Social Media Environment', *International Review of Law, Computers and Technology*, Vol. 33 (2019), p. 129.

[51] E. Celeste, 'Digital Constitutionalism: A New Systematic Theorisation', *International Review of Law, Computers & Technology*, Vol. 33 (2019), pp. 76-99, p. 92.

[52] A. Peters, 'Global Constitutionalism Revisited', *International Legal Theory*, Vol. 11 (2005), pp. 39-69.

[53] D. Kennedy, 'The Mystery of Global Governance' in *Ruling the World. Constitutionalism, International Law, and Global Governance,* J-.L. Dunoff and J.-P. Trachtman (Cambridge UP, 2009), pp. 37-68.

[54] G. de Gregorio, 'The Rise of Digital Constitutionalism in the European Union', *International Journal of Constitutional Law*, Vol. 19 (2021), pp. 41-70, p. 58.

[55] N. P. Suzor, 'Digital Constitutionalism: Using the Rule of Law to Evaluate the Legitimacy of Governance by Platforms', *Social Media + Society*, no. 4-3 (2018), pp. 1–11, p. 4.

[56] N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019) p. 9

> "We return to the notion of digital constitutionalism as an overarching framework that provides guidance and values to address how to centre the protection of rights and freedoms of people in their interactions with institutions and actors in the digital economy."[57]
> "In this regard, seeing these developments as a way to constitutionalise digital spaces is important. This is because a constitutional law perspective offers not only a way to limit the power of different actors, whether public or private parties, performing public functions, and ensures that they remain accountable to the people. It also provides a language of rights, wherein people are safeguarded and protected in regard to their fundamental freedoms, but also have an opportunity to redress any grievance on account of excesses of public and private power.186 In doing so, it provides a series of guarantees and values to ensure that there is an equilibrium and balance among different players.187 Framing these discussions through digital constitutionalism therefore ensures that even as a flurry of new legislation addresses different aspects of practice in the data economy, testing legislation from a perspective in terms of how they create instruments to balance power, provide tools to challenge power, and frameworks to hold those with power accountable is critical."[58]

In spite of these explicit presentations of digital constitutionalism, one cannot deny that (too?) many objects as well as (too?) many discourses have developed to deal with those objects, either to frame them, to discuss their legitimacy, or to reform them. Many things travel under the flag of "digital constitutionalism". Because of the ongoing conceptual turmoil, disorder or chaos, it is to be expected that confusions abound in this discussion. As will become clear in the pages that follow, since the term "informational constitutionalism" appeared in the literature,[59] digital constitutionalism has been the name of a wide variety of topics, perspectives, and projects.

9. My project with this paper is not to repeat what has been done by the authors who have dedicated studies of great quality to the topic. As a consequence, no thorough and systematic study of digital constitutional phenomena, nor a self-contained, full-blown, and original theorisation of them is to be expected. Building on the seminal work of some of the most relevant specialists in the field – Oreste Pollicino,[60] Edoardo Celeste,[61] Giovanni De

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[57] European Parliament, *Governing data and artificial intelligence for all. Models for sustainable and just data governance*, European Parliamentary Research Service (Scientific Foresight Unit (STOA), PE 729.533 – July 2022), p. 1, available at : https://www.europarl.europa.eu/RegData/etudes/STUD/2022/729533/EPRS_STU(2022)729533_EN.pdf

[58] *Ibid*., p. 48, available at : https://www.europarl.europa.eu/RegData/etudes/STUD/2022/729533/EPRS_STU(2022)729533_EN.pdf

[59] B. Fitzgerald, 'Software as Discourse? The Challenge of Information Law', *European Intellectual Property Review*, Vol. 22 (2000), pp. 47-55 ; B. Fitzgerald, ''Software as Discourse – A Constitutionalism for Information Society', *Alternative Law Journal*, Vol. 24 (1999), pp. 144-149 ; B. Fitzgerald, 'Software as Discourse: The Power of Intellectual Property in Digital Architecture', *Cardozo Arts & Entertainment Law Journal*, Vol. 18 (2000), p. 337.

[60] O. Pollicino, *Judicial Protection of Fundamental Rights on the Internet. A Road Towards Digital Constitutionalism?* (Oxford: Hart, 2021); O. Pollicino and G. de Gregorio, 'Constitutional Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, G. de Gregorio, (Cambridge: Cambridge UP, 2021) pp. 3-24; O. Pollicino, 'Di cosa parliam quando parliamo di costituzionalismo digitale? New Wine in Old Bottles o una nuova stagione del diritto costituzionale?', *Quaderni costituzionali* (2023) ; O. Pollicino, 'The Quadrangular Shape of the Geometry of Digital Power(s) and the Move Towards a Procedural Digital Constitutionalism', *European Law Journal* (2023), pp. 1-21.

[61] E.Celeste, 'Digital Constitutionalism. Mapping the Constitutional Response to Digital Technology's Challenges', *HIIG Discussion Paper Series*, No. 2018-2 (July 2018), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3219905 ; E. Celeste, 'The Constitutionalisation of the Digital Ecosystem: Lessons From International Law', in *International Law and the Internet,* M. Kettemann, R. Kunz, A.J. Golia (Nomos: Baden-Baden, 2021), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3872818 ; E. Celeste, 'Terms of Service and Bills of Rights: New Mechanisms of Constitutionalisation in the Social Media Environment', *International Review of Law, Computers and Technology*, Vol. 33 (2019), pp. 122-138 ; E. Celeste, 'Digital Constitutionalism: A New Systematic Theorisation', *International Review of Law, Computers & Technology*, Vol. 33 (2019), pp. 76-99 ; E. Celeste, 'What is Digital Constitutionalism?' (2018), available at : https://www.hiig.de/en/publication/what-is-digital-constitutionalism/

Gregorio,[62] Nicholas P. Suzor,[63] Laurence Diver,[64] etc.[65] –, I will try to offer something else. My focus is not so much on the technologies themselves, nor on the law that applies to them, as on the doctrinal effort that tries to understand the current evolutions and to account for them through a constitutional lens, thus "redimensioning constitutionalism."[66] What I propose is to discuss this very approach, its merits and demerits, what it presupposes and what it implies. I also aim to bring to the discussion some remarks, suggestions, and objections that may help the discussion to go on in a more critical and self-conscious way.

As a consequence, and more precisely, my intention is threefold. It is first to get a general impression of what is going on. I want first to offer a tentative mapping of some of the forms of digital constitutional talk that have emerged and are developing. Although it may not be possible to offer a full-blown systematic taxonomy of the types of discourses that are developing under the name "digital constitutionalism," I will try to provide a broad overview of the nebula of discussions and controversies that resort to a constitutional vocabulary and a constitutional conceptual apparatus to face some issues they identify in the current evolution of our societies after the Fourth Industrial Revolution.[67]

Secondly, I propose to explore the tension between two perspectives, whose innovativeness in constitutional terms differ. On the one hand, several authors and actors,

[62] O. Pollicino and G. de Gregorio, 'Constitutional Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, G. de Gregorio, (Cambridge: Cambridge UP, 2021) pp. 3-24 ; G. de Gregorio, 'Digital constitutionalism across the Atlantic', *Global Constitutionalism*, Vol. 11-2 (2022), pp. 297-324 ; G. de Gregorio and R. Radu, 'Digital Constitutionalism in the New Era of Internet Governance', *International Journal of Law and Information Technology*, no. 30 (2022), pp. 68-87.
[63] N. P. Suzor, 'Digital Constitutionalism: Using the Rule of Law to Evaluate the Legitimacy of Governance by Platforms'*, Social Media + Society*, no. 4-3 (2018), pp. 1–11 ; N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019).
[64] L. Diver, *Digisprudence. Code as Law Rebooted* (Edinburgh : Edinburgh University Press, 2022).
[65] See also M. A. Lemley, 'The Constitutionalization of Technology Law', *Berkeley Technology Law Journal*, Vol. 15 (2000) pp. 529-534 ; G. F. Mendes, V. O. Fernandes, 'Constitucionalismo digital e jurisdição constitucional: uma agenda de pesquisa para o caso brasileiro', *Revista brasileira de direito*, Vol. 16, no. 1 (2020), pp. 1-33 ; M. Mann, A. Daly, M. Wilson and N. Suzor, 'The Limits of (digital) constitutionalism: Exploring the Privacy-Security (im)balance in Australia', *The International Communication Gazette*, Vol. 80 (2018), pp. 369-384 ; K. Yilma, "Digital Privacy and Virtues of Multilateral Digital Constitutionalism – Preliminary Thoughts", *International Journal of Law and Information Technology*, Vol. 25 (2017), pp. 115-138 ; M. Marzouki, 'A Decade of CoE Digital Constitutionalism Efforts: Human Rights and Principles Facing Internet Privatized Regulation and Multistakeholder Governance', *2019 International Association for Media and Communication Research Conference* (Madrid, Spain, 2019) ; C. Padovani and M. Santaniello, 'Digital Constitutionalism: Fundamental Rights and Power Limitation in the Internet Eco-System', *The International Communication Gazette*, Vol. 80 (2018), pp. 295-301 ; P. Schiff Berman, 'Cyberspace and the State action debate: the cultural value of applying constitutional norms to 'private' regulation', *University of Colorado LR*, Vol. 71 (2000), pp. 1263; B. Fitzgerald, 'Software as Discourse? The Challenge of Information Law', *European Intellectual Property Review*, Vol. 22 (2000), pp. 47-55; B. Fitzgerald, ''Software as Discourse – A Constitutionalism for Information Society', *Alternative Law Journal*, Vol. 24 (1999), pp. 144-149 ; B. Fitzgerald, 'Software as Discourse: The Power of Intellectual Property in Digital Architecture', *Cardozo Arts & Entertainment Law Journal*, Vol. 18 (2000), p. 337 ; F. Amoretti, *Electronic Constitution. Social, Cultural and Political Implications* (Information Science Reference, 2009) ; E. Alston, 'Constitutions and Blockchains: Competitive Governance of Fundamental Rule Sets', *Case Western Reserve Journal of Law, Technology & the Internet*, Vol. 11, No. 4 (2019), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3358434 ; C. B. Graber, 'Bottom-Up Constitutionalism: The Case of Net Neutrality', *Transnational Legal Theory*, no. 7-04 (2017), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2941985 ; P. Nemitz, 'Constitutional Democracy and Technology in the Age of Artificial Intelligence', *Philosophical Transactions of the Royal Society* (2018), available at : https://royalsocietypublishing.org/doi/10.1098/rsta.2018.0089 ; A. Simoncini and E. Longo, 'Fundamental Rights and the Rule of Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, G. de Gregorio, (Cambridge: Cambridge UP, 2021) pp. 27-41; A.-C. Jamart, 'Internet Freedom and the Constitutionalization of Internet Governance', in *The Evolution of Global Internet Governance: Principles and Policies in the Making*, R. Radu (Berlin: Springer, 2014) pp. 57-76 ; K. Yilma, 'Digital Privacy and Virtues of Multilateral Digital Constitutionalism – Preliminary Thoughts', *International Journal of Law and Information Technology*, Vol. 25 (2017), pp. 115-138 ; F. Balaguer Callejón, *La constitución del algoritmo* (Zaragoza: Fundación Manuel Giménez Abad, 2022) ; F. Balaguer Callejón, *La constitución del algoritmo. El difícil encaje de la constitución analógica en el mundo digital* (2023), available at : https://www.fundacionmgimenezabad.es/es/derecho-publico-de-la-inteligencia-artificial ; S. Rodotà, 'Una costituzione per Internet', *Politica del diritto* (2010), pp. 337.
[66] J. A. Catañeda Méndez, 'El efecto horizontal de los derecho sfundamentales en el contexto de constitucionalización global de régimen jurídico privado digital', *Revista jurídica Mario Alario d'Filippo*, Vol. 8, no. 15 (2015), pp. 29-47, p. 32.
[67] K. Schwab, *The Fourth Industrial Revolution* (Geneva: World Economic Forum, 2016). See also S. Weymouth, *Digital Globalization: Politics, Policy, and a Governance Paradox* (Cambridge: Cambridge University Press, 2023).

whom I will characterise as holding a "thin conception"[68] of digital constitutionalism, tend to consider that the traditional grammar of constitutionalism,[69] as it emerged in the XVIIIth century, is at the same time flexible and robust enough to accommodate the demands of contemporary societies in terms of fundamental rights protection and political power limitation. On the other hand, other digital constitutionalists claim that only a truly updated form of constitutionalism can help. Although this perspective remains faithful to the most fundamental intentions of State constitutionalism, it underlines the need for reinventing some of its features or supplementing them with innovative new tools that precisely confront and make use of the new technologies that have emerged and cause constitutional concern. Granted, one needs to be cautious, as a variety of positions range between these two extremities across a whole spectrum. At this point, I need to make clear to what extent this reconstruction is schematic and only aims at rationalising the burgeoning discussion about digital constitutionalism. But this approximative divide may nevertheless be helpful to understand the kind of intellectual and practical effort that is currently underway, as well as its undebated elements and controversial aspects.

Finally, I want to insist that addressing important features of the digital age through a constitutional lens is not necessary but contingent. It is not a matter of necessity but a matter of choice. As a consequence, it is worth trying to investigate the more or less implicit, hidden, or unconscious reasons and implications of the choice of the constitutional framework.

10. The structure of this paper is as follows. In Part 2 of this essay, I review several examples of situations where the discussion about digital constitutionalism has emerged. In Part 3, I try to offer a tentative mapping of the types of controversies that are designated and, as a consequence, framed, in constitutional terms. In the next two parts, I intend to discuss the kinds of solutions that have been offered to the difficulties previously identified. They exhibit varying degrees of innovativeness with respect to traditional XVIIIth century constitutionalism. Whereas a first possible general attitude tends to consider that traditional and well established constitutional principles are sufficient to face contemporary digital challenges, another considers that such a conservative attitude falls short of offering relevant solutions. In order to go beyond outdated forms of constitutionalisms, or at least to supplement them in contemporary circumstances, new tools have to be invented. I address this tension by considering issues of fundamental rights protection in Part 4, and issues of separation of powers in Part 5, respectively. In the sixth and final Part of the paper, I take a step back to figure out the background implications of applying a constitutional lens to the kind of issues that result from the development of the digital universe. What does such a choice, which is perfectly contingent and obeys to no form of alethic necessity, tells about the deeper, more or less explicit, ideologies of those whose project is to address digital issues?

[68] On this distinction, in other contexts, see e.g. M. Walzer, *Thick and Thin: Moral Argument at Home and Abroad* (University of Notre Dame Press, 1999) ; C. Geertz, *Local Knowledge: Further Essays in Interpretative Anthropology* (New York: Basic Books, 1983), 244 p.
[69] C. Caruso and C. Valentini, *Grammatica del costituzionalismo* (Bologna, Il Mulino, 2021), 338 p.

2. TEN VIGNETTES OF DIGITAL CONSTITUTIONALISM

11. In this part, I intend to make my discussion more concrete by offering instantiations of the general phenomenon of digital constitutionalism or, more precisely, of the several situations that, some day or the other, fall under that category. I provide a sample of issues that are ordinarily addressed by digital constitutional scholars or constitutional actors. Endorsing the perspective of chaos, a multiplicity of examples is exposed, in what one may perceive as a rather disorderly presentation. I have no intention to be representative, let alone exhaustive, of the progression and dynamics of the discussion about digital constitutionalism. I only intend to shed some light on the variety, extension, breadth and depth of the current debate.

2.1. The right to be forgotten[70]

12. The first illustration I propose is the ruling of the Argentinian *Corte suprema de justicia de la Nación* of 28 June 2022. In the case Natalia Denegri v. Google,[71] the Supreme Court unanimously rejected the existence of a "right to be forgotten" that could justify an injunction that Google de-indexes information of public interest. The petitioner was a famous TV presenter. She had participated in a TV show where she had been very aggressive, both verbally and physically, to other participants. In 2016, i.e. more than two decades after the videos were created, she asked Google to remove some of these videos from the Internet. She based her claim on the right to be forgotten, as it had been identified by the European Court of Justice in the case *Google Spain v. Agencia Española de protección de datos*.[72] This

[70] For general references, see e.g. L. Burguera Ameave, *La construcción social de la identidad colectiva en Internet. El derecho a la memoria digital* (Cizur Menor: Thomson Reuters-Aranzadi, 2021) ; A. Tskipurishvili, 'The Right to be Forgotten in the Digital Age', *Geneva Jean Monnet Working Papers* (January 2023), available at : https://www.ceje.ch/files/4316/7696/9004/tskipurishvili-01-2023.pdf

[71] Denegri, Natalia Ruth c/ Google Inc. s/ derechos personalísimos: Acciones relacionadas ; CIV 50016/2016/CS1; CIV 50016/2016/1/RH1, available at : https://globalfreedomofexpression.columbia.edu/wp-content/uploads/2022/12/FALLO-CIV-050016_2016_CS001.pdf.

[72] Case C-131/12, § 100:

"*1. Article 2(b) and (d) of Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data are to be interpreted as meaning that, first, the activity of a search engine consisting in finding information published or placed on the internet by third parties, indexing it automatically, storing it temporarily and, finally, making it available to internet users according to a particular order of preference must be classified as 'processing of personal data' within the meaning of Article 2(b) when that information contains personal data and, second, the operator of the search engine must be regarded as the 'controller' in respect of that processing, within the meaning of Article 2(d).*

2. Article 4(1)(a) of Directive 95/46 is to be interpreted as meaning that processing of personal data is carried out in the context of the activities of an establishment of the controller on the territory of a Member State, within the meaning of that provision, when the operator of a search engine sets up in a Member State a branch or subsidiary which is intended to promote and sell advertising space offered by that engine and which orientates its activity towards the inhabitants of that Member State.

3. Article 12(b) and subparagraph (a) of the first paragraph of Article 14 of Directive 95/46 are to be interpreted as meaning that, in order to comply with the rights laid down in those provisions and in so far as the conditions laid down by those provisions are in fact satisfied, the operator of a search engine is obliged to remove from the list of results displayed following a search made on the basis of a person's name links to web pages, published by third parties and containing information relating to that person, also in a case where that name or information is not erased beforehand or simultaneously from those web pages, and even, as the case may be, when its publication in itself on those pages is lawful.

4. Article 12(b) and subparagraph (a) of the first paragraph of Article 14 of Directive 95/46 are to be interpreted as meaning that, when appraising the conditions for the application of those provisions, it should inter alia be examined whether the data subject has a right that the information in question relating to him personally should, at this point in time, no longer be linked to his name by a list of results displayed following a search made on the basis of his name, without it being necessary in order to find such a right that the inclusion of the information in question in that list causes prejudice to the data subject. As the data subject may, in the light of his fundamental rights under Articles 7 and 8 of the Charter, request that the information in question no longer be made available to the general public on account of its inclusion in such a list of results, those rights override, as a rule, not only the economic interest of the operator of the search engine but also the interest of the general public in having access to that information upon a search relating to the data subject's name. However, that would not be the case if it appeared, for particular reasons, such as the role played by the data subject in public life, that the interference with his

ruling paved the way for the inclusion of the right to be forgotten in the General data protection regulation (GDPR), whose Article 17 establishes a "right to erasure."[73]

Ms. Denegri claimed that the content that was available online embarrassed her and her new career, and should as a consequence be removed. According to her, the right to access information should yield to her right to privacy, intimacy, honour, and reputation. In the first instance, the court ruled in her favour. The Court of Appeals of the City of Buenos Aires confirmed this ruling as it considered that the available information caused damage to the claimant without its accessibility having any interest for the public, for example from a historical or a scientific perspective.

The Supreme Court unanimously reversed the appellate ruling. It decided to make freedom of expression prevail. Understood not only as the individual right to issue and express one's thoughts, but also as a social right to information, this right, which appears in Article 14 of the Constitution and Article 13.1 of the American Convention on Human Rights, is of the utmost importance for the functioning of a democratic society. It follows that claims at de-indexation have to be understood as asking for an "extreme measure" that interrupts the communicational process

> "pues al vedar el acceso a dicha información se impediría la concreción del acto de comunicación —o, al menos, dada la preponderancia que revisten los motores de búsqueda, se lo dificultaría sobremanera—, por lo que tal pretensión configura una medida extrema que, en definitiva, importa una grave restricción a la circulación de información de interés público y sobre la que pesa —en los términos antedichos— una fuerte presunción de inconstitucionalidad." (§12)

The mere passing of time cannot be enough to justify limiting the access to information and curtailing of public debate (§ 14). More generally,

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fundamental rights is justified by the preponderant interest of the general public in having, on account of its inclusion in the list of results, access to the information in question."

[73] GPDR, Article 17 : Right to erasure ('right to be forgotten') :

"1. The data subject shall have the right to obtain from the controller the erasure of personal data concerning him or her without undue delay and the controller shall have the obligation to erase personal data without undue delay where one of the following grounds applies:

(a) the personal data are no longer necessary in relation to the purposes for which they were collected or otherwise processed;
(b) the data subject withdraws consent on which the processing is based according to point (a) of Article 6(1), or point (a) of Article 9(2), and where there is no other legal ground for the processing;
(c) the data subject objects to the processing pursuant to Article 21(1) and there are no overriding legitimate grounds for the processing, or the data subject objects to the processing pursuant to Article 21(2);
(d) the personal data have been unlawfully processed;
(e) the personal data have to be erased for compliance with a legal obligation in Union or Member State law to which the controller is subject;
(f) the personal data have been collected in relation to the offer of information society services referred to in Article 8(1).
2. Where the controller has made the personal data public and is obliged pursuant to paragraph 1 to erase the personal data, the controller, taking account of available technology and the cost of implementation, shall take reasonable steps, including technical measures, to inform controllers which are processing the personal data that the data subject has requested the erasure by such controllers of any links to, or copy or replication of, those personal data.
3. Paragraphs 1 and 2 shall not apply to the extent that processing is necessary:
(a) for exercising the right of freedom of expression and information;
(b) for compliance with a legal obligation which requires processing by Union or Member State law to which the controller is subject or for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller;
(c) for reasons of public interest in the area of public health in accordance with points (h) and (i) of Article 9(2) as well as Article 9(3);
(d) for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes in accordance with Article 89(1) in so far as the right referred to in paragraph 1 is likely to render impossible or seriously impair the achievement of the objectives of that processing; or
(e) for the establishment, exercise or defence of legal claims."

> "ante las tensiones entre el derecho al honor [as it follows from Article 33 of the Constitution several international treaties which enjoy constitutional value] y la protección de la libertad de expresión, este Tribunal sostiene que esta última goza de una protección más intensa siempre que se trate de publicaciones referidas a funcionarios públicos, personas públicas o temas de interés público por el prioritario valor constitucional que busca resguardar el más amplio debate respecto de las cuestiones que involucran personalidades públicas o materias de interés público como garantía esencial del sistema republican." (§ 17)

Under the circumstances of the case and paying attention to the wider consequences of such a decision, the Court saw no justification for consecrating a right to be forgotten merely for videos whose content appeared subjectively unpleasant. In this very important case for the Latin American region, as many amicus curiae joined the procedure, the Argentinian Supreme Court thus decided to turn away from the European Court of Justice's perception of the balance between fundamental rights. It leans towards free speech rather than towards the protection of privacy. The history of violations of human rights and importance of the right to truth in the region contribute to explain this decision.[74]

2.2. Public decision by algorithm

13. The next case I would like to mention is a ruling by the Constitutional Court of Ecuador of 1 December 2021.[75] Equatorian constitutionalism is rather peculiar. Among other cases – Venezuela, Colombia, and Bolivia – it embodies what is frequently portrayed as a new constitutionalism.[76] One of the most salient features of the Constitution adopted in 2008 is related to the fundamental rights that have been granted to the Pacha Mama, in addition to the more traditional fundamental rights of individuals and groups. Pursuant to the articles of Chapter VII of the Constitution,

> "Article 71
> Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes.
> All persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature. To enforce and interpret these rights, the principles set forth in the Constitution shall be observed, as appropriate.
> The State shall give incentives to natural persons and legal entities and to communities to protect nature and to promote respect for all the elements comprising an ecosystem.

[74] See e.g. C. Cortés, 'Derecho al olvido: entre la protección de datos, la memoria y la vida personal en la era digital' (Centro de Estudios en Libertad de Expresión y Acceso a la Información –CELE- de la Facultad de Derecho de la Universidad de Palermo), available at : https://www.palermo.edu/cele/pdf/DerechoalolvidoiLEI.pdf

[75] Caso Nro. 1149-19-JP/21 : Revisión de Sentencia de Acción de Protección Bosque Protector Los Cedros, available at : https://www.corteconstitucional.gob.ec/caso-nro-1149-19-jp-21-revision-de-sentencia-de-accion-de-proteccion-bosque-protector-los-cedros/#:~:text=La%20Corte%20Constitucional%20del%20Ecuador%20revis%C3%B3%20la%20sentencia,de%20las%20concesiones%20R%C3%ADo%20Magdalena%2001%20y%2002.

[76] D. Nolte and A. Schilling-Vacaflor, *New Constitutionalism in Latin America. Promises and Practices* (Farnham, Burlington: Ashgate, 2012), 409 p. ; F. Corrêa Souza de Oliveira and L. Luiz Streck, 'El nuevo constitucionalismo latinoamericano : reflexiones sobre la posibilidad de construir un derecho constitucional común', *Anuario iberoamericano de justicia constitucional*, no. 18 (2014), pp. 125-153 ; R. Viciano Pastor and R. Martínez Dalmau, 'El nuevo constitucionalismo latinoamericano: fundamentos para una construcción doctrinal', *Revista general de derecho público comparado*, no. 9 (2011) pp. 1-24 ; R. Albert, C. Bernal and J. Zaiden Benvindo, *Constitutional Change and Transformation in Latin America* (Oxford, Portland: Hart, 2019), 357 p. ; C. Bernal Pulido, *Du néoconstitutionnalisme en Amérique latine* (Paris: L'Harmattan, 2015), 178 p. ; M. Carbonell, *Teoría del neoconstitucionalismo. Ensayos escogidos* (Madrid: Trotta, 2007), 334 p. ; C. Storini and J.F. Alenza García, *Materiales sobre neoconstitucionalismo y nuevo constitucionalismo latinoamericano* (Cizur Meno:, Thomson, Reuters, Aranzadi, 2012), 495 p.

> Article 72
> Nature has the right to be restored. This restoration shall be apart from the obligation of the State and natural persons or legal entities to compensate individuals and communities that depend on affected natural systems.
> In those cases of severe or permanent environmental impact, including those caused by the exploitation of non-renewable natural resources, the State shall establish the most effective mechanisms to achieve the restoration and shall adopt adequate measures to eliminate or mitigate harmful environmental consequences.
> Article 73
> The State shall apply preventive and restrictive measures on activities that might lead to the extinction of species, the destruction of ecosystems and the permanent alteration of natural cycles.
> The introduction of organisms and organic and inorganic material that might definitively alter the nation's genetic assets is forbidden.
> Article 74
> Persons, communities, peoples, and nations shall have the right to benefit from the environment and the natural wealth enabling them to enjoy the good way of living.
> Environmental services shall not be subject to appropriation; their production, delivery, use and development shall be regulated by the State."

In the ruling at hand, the Court made clear that these provisions were not to be read as mere aspirational proclamations or declarations. They contain fully enforceable constitutional rights. This is why the Court's majority declared that the rights of Nature of the Bosque Protector Los Cedros, as well as the right to a safe environment, the right to water and the right to environmental consultation had been violated by the issuance of the "registro ambiental para la fase de exploración inicial, dentro de las concesiones mineras Río Magdalena 01 y 02". In virtue of the Constitution, this ecosystem enjoys fundamental rights, such as the right to existence of its animal and vegetal species, as well as the right to maintain its cycles, structure, functions and evolutive process.

One of the reasons that led to the declaration of unconstitutionality was related to digital constitutionalism. The activity of metal extraction in Los Cedros imperils this ecosystem. Scientific uncertainty on the possible negative consequences of mine exploitation in such a rich ecosystem has not been lowered by the defendant. The public authorities have only transmitted an obviously insufficient "registro ambiental". In light of the relevant zone,

> "el registro ambiental en este caso no podía limitarse a un mero trámite automatizado, como el que se realizó. Pues se observa en el registro ambiental, que este se redujo al ingreso de datos a un sistema informático y la emisión automática de dicho registro, sin que se verifique que haya un análisis por parte de la autoridad ambiental sobre los derechos de la naturaleza que asisten al Bosque Protector Los Cedros en función de la información científica sobre su biodiversidad." (§ 137)

14. This cause for the violation of Nature's fundamental rights is not unrelated to constitutional debates about the extent to which public decision-making should or should not be left to automatic procedures. For example, in Germany, § 35a of the *Verwaltungsverfahrensgesetz* reads: "An administrative act may be adopted entirely by automatic bodies, provided that this is permitted by law and that there is neither discretion nor room for assessment." This principle, according to which one should always be entitled,

at some point of a decision-making process, to a human decision, is one of the most fundamental that regulate the use of algorithms. So much so that it sometimes leads to the identification of a full-blown (constitutional) right to a "human in the loop".[77] In the same perspective, Article 22.1 of the GDPR states that in principle, "The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her."

While it opened the way to administrative algorithmic decision-making, the Italian Council of State made it clear that this could not be without guarantees. In ruling 2270 of 8 April 2019,[78] it had to rule on administrative decisions to appoint professors to schools following an exceptional ministerial plan. The decisions were made in a totally automated way by an electronic system. According to the claimants, the procedure resulted in irrational decisions appointing them to unexpected positions with respect to their past careers, and very far from where they lived. The Council of State generally underlined "gli indiscutibili vantaggi derivanti dalla automazione del processo decisionale dell'admministrazione mediate l'utilizzo di una procedura digitale ed attraverso un 'algoritmo' […] che in via informatica sia in grado divaluratre e graduare una moltitudine di domande" (§ 8.1.). Such a procedure

> "è, invero, conforme ai canoni di efficienza ed economicità dell'azione amministrativa (art. 1 l. 241/90), i quali, secondo il principio costituzionale di buon andamento dell'azione amministrativa (art. 97 Cost.), impongono all'amministrazione il conseguimento dei propri fini con il minor dispendio di mezzi e risorse e attraverso lo snellimento e l'accelerazione dell'iter procedimentale.
> Per questa ragione, in tali casi – ivi compreso quello di specie, relativo ad una procedura di assegnazione di sedi in base a criteri oggettivi – l'utilizzo di una procedura informatica che conduca direttamente alla decisione finale non deve essere stigmatizzata, ma anzi, in linea di massima, incoraggiata: essa comporta infatti numerosi vantaggi quali, ad esempio, la notevole riduzione della tempistica procedimentale per operazioni meramente ripetitive e prive di discrezionalità, l'esclusione di interferenze dovute a negligenza (o peggio dolo) del funzionario (essere umano) e la conseguente maggior garanzia di imparzialità della decisione automatizzata.
> In altre parole, l'assenza di intervento umano in un'attività di mera classificazione automatica di istanze numerose, secondo regole predeterminate (che sono, queste sì, elaborate dall'uomo), e l'affidamento di tale attività a un efficiente elaboratore elettronico appaiono come doverose declinazioni dell'art. 97 Cost. coerenti con l'attuale evoluzione tecnologica." (§ 8.1.)

Nevertheless, some conditions must be met. The rule enforced by the machine must be a general administrative rule, created by human beings, and complying with the traditional rules and principles for the validity of administrative norms. It cannot leave any space for discretionary power. The administration must analyse and balance the relevant interests ex ante and keep monitoring and updating the algorithm. It must admit judicial review of the machine's operations. It follows that the algorithm (authors, designing process, decision mechanism, evaluation procedure, data used to feed the machine, etc.) must be knowable and transparent, and fully reviewable by a judge. In the case at hand, the Council of State decided that the procedure that had been followed violated the principles of impartiality,

[77] See infra, 5.1.1. See e.g. Commission nationale informatique et libertés, *Comment permettre à l'homme de garder la main? Les enjeux éthiques des algorithmes et de l'intelligence artificielle* (December 2017), available at : https://www.cnil.fr/sites/default/files/atoms/files/cnil_rapport_garder_la_main_web.pdf
[78] See https://www.lavorodirittieuropa.it/images/Raiti_Consiglio_di_Stato_2270-2019_1.pdf

publicity and transparency, for it did not allow to understand the reasons why the legitimate expectations of the claimants had been disappointed.[79]

2.3. Politics in the digital age

15. In addition to traditional forms of action, political parties currently develop their activities online.[80] They all have websites, which they intend to be attractive to citizens and militants. They develop and diffuse political propaganda and try to reach the electors through websites and social networks. Influencers on social media are sometimes paid to spread political messages, thus blurring the distinction between political and commercial content.[81] Some political organisations, like the *Movimento 5 stelle* in Italy, were, since their very inception, deeply connected with new technologies.[82] Citizens search for political information online and discuss these issues through Twitter, Instagram, Facebook or Telegram. As the Arab Spring proved, citizens and activists are able to mobilise through social networks that elude the state's control and censorship, to the extent that they may decide to topple an authoritarian system. Live popular involvement in political decision-making is possible. Open data makes popular control easier and reinforces accountability. Whereas GovTech allows government to be more efficient and deliver better services to the citizens, CivTech or Civic Tech is able to renew political life considerably, by reinforcing popular control and participation. The current demand for new forms of democracy that may complement the traditional representative forms can find some support in the development of new technologies. They can offer fruitful tools for more participatory, deliberative, and ongoing forms of democracy. Participatory budget elaboration has been practised in Lisbon, Helsinki, Barcelona, Amsterdam, and Paris. Estonia has had a pioneering attitude in developing online voting since 2005.[83]

[79] N. Muciaccia, 'Algoritmi e procedimento decisionale: alcuni recenti arresti della giustizia amministrativa', Federalismi.it, no. 10 (April 2020), available at : https://www.federalismi.it/nv14/articolo-documento.cfm?Artid=41974 ; G. Fasano, 'Le decisioni automatizzate nella pubblica amministrazione: tra esigenze di semplificazione e trasparenza algoritmica', Medialaws, no. 3 (2019), available at : https://www.medialaws.eu/rivista/le-decisioni-automatizzate-nella-pubblica-amministrazione-tra-esigenze-di-semplificazione-e-trasparenza-algoritmica/

[80] S.C Woolley and P.N. Howard, *Computational Propaganda. Political Parties, Politicians, and Political Manipulation on Social Media* (Oxford: Oxford UP, 2018).

[81] G. de Gregorio and C. Goanta, 'The Influencer Republic: Monetizing Political Speech on Social Media', *German Law Journal*, Vol. 23 (2022), pp. 204-225.

[82] See e.g. P. Gerbaudo, *The Digital Party. Political Organisation and Online Democracy* (London: Pluto Press, 2019).

[83] J. Duberry, *Artificial Intelligence and Democracy. Risks and Promises of AI-Mediated Citizen–Government Relations* (Cheltenham: Edward Elgar, 2022) ; B. Noveck, *Wikigovernment. How Technology can Make Governments Better, Democracy Stronger and Citizens More Powerful* (Brookings Institution, 2009) ; A. Sánchez Navarro and R. M. Fernández Rivera, *Reflexiones para una democracia de calidad en una era tecnológica*, (Cheltenham: E. Elgar, 2022), pp. 195-223 ; J.L. Martí, 'The Role of New Technologies in Deliberative Democracy', in *Rule of Law vs Majoritarian Democracy,* G. Amato, B. Barbisan, C. Pinelli (Oxford: Hart, 2021), pp. 199-220 ; D. Leal García et al., *Democracy Technologies in Europe. Online Participation, Deliberation and Voting. A Report for Lawmakers, Governments and Policymakers at National and European Level* (The Innovation in Politics Institute, International Institute for Democracy and Electoral Assistance, 2023), available at : https://www.idea.int/sites/default/files/publications/democracy-technologies-in-europe.pdf

But some authors warn to be cautious.[84] They have shown that the liberating potential of the Internet may be illusory, as some specific groups are able to dominate this arena, thus reproducing previous forms of political inequality.[85] Alongside democratic and liberal governments, authoritarian leaders also use technologies.[86] Governmental personal data handling, especially in terms of political preferences, raises concern. Electronic voting systems have considerably developed, making political expression and decision easier, and at the same time safer and more insecure from the viewpoint of universality, equality, secrecy, liberty and personality.[87] Digital censorship is by no means excluded, even in countries, like Egypt, where the digital sphere contributed to change the regime.[88] The whole traditional political ecosystem has been changed considerably due to technological evolutions.

16. The influence of the digital environment on politics has been evident with recent political processes. The Cambridge Analytica scandal exposed how a firm was able to identify the profiles of millions of individuals and use them for political gain.[89] In the context of the Brexit and the 2016 US Presidential election,[90] it helped to identify the voting intentions and to adapt the message that was sent to the citizens, in order to shape their preferences or to induce abstention, thus having considerable influence on the final result. Online manipulation is a major source of concern.[91] AI-driven propaganda has exerted an impact on elections in Ukraine, Estonia, China, Iran, Mexico, the UK, and the US. It appears that during the 2016 presidential election in the United States, one fifth of Twitter discussions came from bots. In

[84] See e.g. D. Cardon, *La démocratie internet. Promesses et limites* (Paris, Seuil, 2010) ; M. Hindman, *The Myth of Digital Democracy* (Princeton: Princeton UP, 2008) ; C. Sunstein, *#Republic. Divided Democracy in the Age of Social Media* (Princeton: Princeton UP, 2017) ; J. Duberry, *Artificial Intelligence and Democracy. Risks and Promises of AI-Mediated Citizen–Government Relations* (Cheltenham: Edward Elgar, 2022) ; J. Meyrieu, 'Promesses et limites du contrôle citoyen sur Internet', *Revue du droit public* (2020), p. 997; J. Bonnet and P. Türk, 'Le numérique : un défi pour le droit constitutionnel', *Nouveaux Cahiers du Conseil constitutionnel*, no. 57 (2017), pp. 13-24 ; I. Fassassi, 'Les effets des réseaux sociaux dans les campagnes électorales américaines', *Nouveaux Cahiers du Conseil constitutionnel*, n° 57 (2017), pp. 69-86 ; F. Balaguer Callejón, *La constitución del algoritmo* (Zaragoza: Fundación Manuel Giménez Abad, 2022), pp. 123-145 ; Aa. Vv., 'Leader e/o partiti', *Rivista di digital politics* (2021), available at : https://www.digitalpolitics.it/numeri/#focus2f77-dbb7 ; E. Celeste, *Digital Constitutionalism: The Role of Internet Bills of Rights* (Abingdon, New York: Routledge, 2023) pp. 16-21.

[85] See e.g. J. Schradie, *L'illusion de la démocratie numérique. Internet est-il de droite* ? (Lausanne : Quanto, Presses polytechniques et universitaires romandes, 2022).

[86] A.R. Gohdes, 'Repression in the Digital Age: Communication Technology and the Politics of State Violence', Doctoral dissertation, (University of Mannheim, 2014), available at : https://madoc.bib.uni-mannheim.de/37902/1/Gohdes_Anita_Doktorarbeit_Mar2015.pdf ; A.R. Gohdes, 'Repression Technology: Internet Accessibility and State violence', *American Journal of Political Science*, Vol. 64-3 (2020), pp. 488-503 ; T. Dragu and Y. Lupu, 'Digital Authoritarianism and the Future of Human Rights', *International Organization*, Vol. 75-4 (2021), pp. 991-1017.

[87] See e.g. T. Álvarez Robles, *Crítica interdisciplinar de los sistemas de votación electrónica: revisando la democracia digital* (Madrid : Eolas, 2022).

[88] P.M. Lutscher, 'When Censorship Works: Exploring the Resilience of News Websites to Online Censorship', *British Journal of Political Science* (2023), pp. 1-9, available at : https://doi.org/10.1017/S0007123422000722. See also Office of the High Commissioner for Human Rights, 'UN Expert Urges Cameroon to Restore Internet Services Cut Off in Rights Violation' (2017), available at www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=21165&LangID=E ; J. Griffiths, 'Myanmar Shuts Down Internet In Conflict Areas As UN Expert Warns of Potential Abuses' (CNN, June 2019), available at : www.cnn.com/2019/06/25/asia/myanmar-internet-shutdown-intl-hnk/index.html ; Amnesty International, 'Benin: Internet Shutdown on Election Day Is a Blunt Attack on Freedom of Expression' (Amnesty, April 2019), available at : www.amnesty.org/en/latest/news/2019/04/benin-internet-shutdown-on-election-day-is-a-blunt-attack ; Shahbaz et al., *Freedom on the Net 2022. Countering an Authoritarian Overhaul of the Internet* (Freedom House, 2022) available at : https://freedomhouse.org/sites/default/files/2022-10/FOTN2022Digital.pdf ; N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019), pp. 79-87.

[89] B. Kaiser, *Targeted. The Cambridge Analytica Whistleblower's Inside Story of How Big Data, Trump, and Facebook Borke Democracy and How it can Happen Again* (New York: Harper Collins, 2019).

[90] See e.g. H. Allcott and M. Gentzkow, 'Social Media and Fake News in the 2016 Election', *Journal of Economic Perspectives*, Vol. 31, No. 2 (2017), pp. 211-236 ; I. Fassassi, 'Les effets des réseaux sociaux dans les campagnes électorales américaines', *Nouveaux Cahiers du Conseil constitutionnel*, n° 57 (2017), pp. 69-86.

[91] F. Jongepier and M. Klenk, *The Philosophy of Online Manipulation* (New York: Routledge, 2022).

2017, two of the most widely followed activist Twitter accounts, @Blacktivist and @WokeBlack, turned out to be fake accounts, behind which were Russian troll farms.[92]

More recently, an investigation called "Story Killers" by the consortium of journalists Forbidden Stories identified an Israeli firm that specialises in influence, electoral manipulation and misinformation. The software it developed, "Advanced Impact Media Solutions", is able to create and activate fake user accounts on various social networks. Each of the fake avatars has a picture, a gender, a family life, a telephone number, etc. It is able to post content on the networks, make comments on commercial websites, so as to appear perfectly real. The content they post can be truly influential. According to the firm's founder, "Nous sommes intervenus dans 33 campagnes électorales au niveau présidentiel." He claims to have been active mostly in Africa, and to have won 27 out of the 33 political campaigns. It also claims to have sabotaged the 2014 consultation on independence in Catalonia, to be able to create dissent among political factions, and to be able to organise lobbying.[93]

Validating the legitimacy of an election or a referendum considering the threats that digital means may pose has become an everyday source of concern for the vast majority of democracies. More importantly, a sane, safe, and sound societal environment, a prerequisite for working democracies, is not to be taken for granted. What was previously regarded as pretty natural, evident, and spontaneous, can readily be debased in the current context, showing its need for new forms of protection.

Search engines are the main entry to information available on the Internet. They cannot be presented as neutrally giving access, in an indiscriminate way, to pieces of information that already exist passively. The way they present results, and especially the ranks they attribute to specific results among pages and within the pages, largely direct the users' attention. The results of a specific search are generally presented in a hierarchised form (e.g. in a list, with ranks). According to the number of results and the limited space available on the screen, the search engine has to establish priorities: some results appear on the first page, whereas others only appear on the sixth page. Consequently, due to human agency and limited time, most of the users will focus on the first results and totally ignore the others, however interesting they might have been if they had been considered. This is all the more true as the size of the screen reduces, as is the case with smartphones, on which an increasing number of searches are initiated.

As Oren Bracha and Frank Pasquale notice: "The implication of such open-ended searches is twofold. First, initial preferences form only a partial yardstick by which a user can evaluate search results and only a weak constraint on search engine's behaviour. Second, in such situations, the particular results presented to the user are likely to affect and shape her future views and interests. Search engines, in other words, often function not as mere

[92] See S.C Woolley and P.N. Howard, *Computational Propaganda. Political Parties, Politicians, and Political Manipulation on Social Media* (Oxford: Oxford UP, 2018) ; Y. Benkler, R. Faris and H. Roberts, *Network Propaganda. Manipulation, Disingormation, and Radicalization in American Politics* (Oxford UP, 2018).

[93] F. Métézeau, P. Lewis, C. Andrzejewski and J. Monin, 'Soupçon d'ingérence à BFMTV : derrière le cas de Rachid M'Barki, l'enquête « Story Killers » révèle le rôle d'une agence de désinformation israélienne' (France TV Info, 15th February 2023), available at : https://www.francetvinfo.fr/monde/story-killers/soupcon-d-ingerence-a-bfmtv-derriere-le-cas-de-rachid-m-barki-l-enquete-story-killers-revele-le-role-d-une-agence-de-desinformation-israelienne_5659016.html ; D. Leloup and F. Reynaud, 'Révélations sur les mercenaires de la désinformation', *Le Monde* (15th February 2023), pp. 18-19.

satisfiers of predetermined preferences, but as shapers of preferences."[94] It has been alleged that the way a search engine organises the displaying of political contents can consequently influence the results of a political election.[95] Search engines also are in a situation where they are capable of controlling the very visibility – i.e. basically the very existence – of specific websites that they can precisely target in a surgical way, thus limiting freedom of expression.[96] This may as well imperil free access to a pluralistic set of information, which is crucial to a democratic political environment.

17. But it has been suggested that the difficulty may go deeper, and independent from the malicious will of politicised search engines. Whereas the digital environment can provide an easy access to an incredible amount of information and opinions, so as to foster pluralist debate and citizens' informed political decision making, it may result in the exact opposite. If one is used to looking for pictures of tailored suits on his smartphone, has identified a promising tailor and made an appointment with him on his website, participates in forums about great tailored suits, leaves a comment about the tailor on Google, follows people like on Twitter, etc., there is a high probability that he will progressively be locked up in an environment where the only legitimate way of dressing is to wear tailored suits. The rest will simply not be presented to him, and will thus practically cease to exist and to be part of his reality.

This case is of minor (?) importance, but the same happens with political opinions. It may lead to a wide segmentation of the electorate into self-contained monolithic categories unaware of political diversity. In that case, everyone would be receiving information and opinions that are aligned with her own initial tendencies. The visibility of diversity would immediately decline. This may result in a process of polarisation and radicalisation, as the alternatives are hidden, ignored, and simply cease to exist. This jeopardises tolerance, as well as the very conscience of the existence and legitimacy of other viewpoints than one's own. The fundamental assumption of a working constitutional democracy, understood as an institutional setting where pluralism is valued, and where the existence of a different opinion is acknowledged as being possible, legitimate, and duly protected, is thus imperilled. On a global level, this leads to a loss of public space, based on minimally shared values that allow diverging opinions to meet and to discuss. This "filter bubble"[97] results from the way an algorithm is trained to present people what is of the most interest to them. This is the strategy to maintain this person's connection on the platform, which is the core of the

[94] O. Bracha and F. Pasquale, 'Federal Search Commission? Access, Fairness, and Accountability in the Law of Search', *Cornell Law Review*, (September 2008). See also J. Grimmelmann, 'Some Skepticism About Search Neutrality', in *The Next Digital Decade: Essays on the Future of the Internet,* B. Szoka and A. Marcus (TechFreedom, 2011) ; E. Goldman, 'Search Engine Bias & the Demise of Search Engine Utopianism', in, *The Next Digital Decade: Essays on the Future of the Internet*, B. Szoka and A. Marcus (TechFreedom, 2011) ; see http://www.searchneutrality.org/.

[95] E.K. Klemons and J. Wilson, 'Can Google Influence an Election?' (The Huffington Post, October 9th 2012), available at : http://www.huffingtonpost.com/eric-k-clemons/google-election-2012_b_1952725.html ; R. Epstein and R. E. Robertson, 'Democracy at Risk: Manipulating Search Rankings Can Shift Voters' Preferences Substantially Without Their Awareness' (American Institute for Behavioral Research and Technology, 2013), available at : http://aibrt.org/downloads/EPSTEIN_and_Robertson_2013-Democracy_at_Risk-APS-summary-5-13.pdf

[96] J. Constine, 'Google Destroys Rap Genius' Search Rankings As Punishment For SEO Spam, But Resolution in Progress' (Techcrunch, December 25th 2013), available at : http://techcrunch.com/2013/12/25/google-rap-genius/

[97] E. Pariser, *The Filter Bubble. What the Internet is Hiding from You* (New York: Penguin Press, 2011).

platform's business model. Their economic interest is to promote kinds of content that prompt engagement and increase the duration of connection. More extreme, unsophisticated, and unbalanced contents naturally have an advantage in this perspective.[98]

18. To take a concrete example of the way politics develops in the digital age and how traditional institutions try to meet its challenges one may consider the case of Brazil. President Jaïr Bolsonaro's partisans have shown an intensive use of social networks to spread fake news, debase their opponents' views, and advance their platform, including calls suggesting disregard for the democratic machinery established by the Constitution of 1988 and preference for dictatorship. This has led the electoral authorities to fear that the intensive spread of fake news thanks to social networks, which are able to reach anyone instantaneously and anywhere, might imperil the democratic process. As a member of the Supreme Federal Tribunal analyses,

> "For the Superior Electoral Court, however, it was a period of profound learning and development of new capacities to deal with the problems brought about by the misuse of social media. The 2018 elections represented a relevant change in the structure of the electoral process, having been marked by the move from television and radio campaigns to social networks. The truth is that neither legislation nor precedents were prepared to address this new reality.
> In the 2020 elections, however, many lessons had already been learned and the Superior Electoral Court prepared itself for a real war, on multiple fronts. In fact, it was necessary to convince people to vote in the midst of a pandemic, to prepare a mega health security plan, with the distribution of safety equipment and, in particular, to prepare a large program to fight disinformation. The program was developed along three axes:
>
> to combat false information by flooding the market with true information;
>
> to put priority focus on the control of inauthentic behavior, and not on the content of the speech; and
>
> to deliver media education, seeking to make society aware of the problem.
>
> The battle against disinformation that aimed to undermine the credibility of the electoral process was won – but only provisionally.
> The truth is that the Digital Revolution and the rise of social media have allowed for the emergence of true digital militias, verbal terrorists who spread hate, lies, conspiracy theories, and attacks on people and democracy. Some call themselves journalists but they are, in fact, fake news dealers."[99]

This is why, among other decisions, on 18 March 2022, seven months before the presidential election, Judge Alexandre de Moraes of the Supremo Tribunal Federal ordered internet providers to block access to the platform Telegram, amid investigations about the dissemination of hate speech, seditious discourse, and fake news from Bolsonaro's far right allies. Until then, Telegram had not been cooperative. After the suspension, it deleted some of Bolsonaro's posts, suppressed some accounts, and took concrete measures against

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[98] F. G'sell, *Les réseaux sociaux, entre encadrement et auto-régulation* (Sciences Po, Chair Digital, Governance and Sovereignity, April 2021), p. 8, available at : https://www.sciencespo.fr/public/chaire-numerique/wp-content/uploads/2022/02/F-GSELL-Research-Paper-Les-réseaux-sociaux-entre-encadrement-et-auto-régulation-version-transitoire-avril-2021-1.pdf ; G. de Gregorio, 'Democratising Online Content Moderation: A Constitutional Framework', *Computer Law and Security Review* (2019) pp. 8-9, available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3469443 ; C. Sunstein, *Republic.com 2.0* (Princeton University Press, 2007) ; M. Coeckelbergh, *The Political Philosophy of Artificial Intelligence* (Cambridge: Polity, 2022), pp. 76-92.

[99] L.R. Barroso, 'Hate, Lies, and Democracy', (Int'l J. Const. L. Blog, January 2022), available at: http://www.iconnectblog.com/hate-lies-and-democracy/

disinformation. More broadly, on 22 October 2022, the TSE unanimously adopted a broader resolution to limit online disinformation, part of which directly targeted the legitimacy of the electoral process as it has been organised since the end of dictatorship.[100] Pursuant to this decision,

> "Art. 2º É vedada, nos termos do Código Eleitoral, a divulgação ou compartilhamento de fatos sabidamente inverídicos ou gravemente descontextualizados que atinjam a integridade do processo eleitoral, inclusive os processos de votação, apuração e totalização de votos.
> § 1º Verificada a hipótese prevista no caput, o Tribunal Superior Eleitoral, em decisão fundamentada, determinará às plataformas a imediata remoção da URL, URI ou URN, sob pena de multa de R$ 100.000,00 (cem mil reais) a R$ 150.000,00 (cem e cinquenta mil reais) por hora de descumprimento, a eterm do término da segunda hora após o recebimento da notificação.
> § 2º Entre a antevéspera e os três dias seguintes à realização do pleito, a multa do § 1º incidirá a partir do término da primeira hora após o recebimento da notificação.
> Art. 3º A Presidência do Tribunal Superior Eleitoral poderá eterminer a extensão de decisão colegiada proferida pelo Plenário do Tribunal sobre desinformação, para outras situações com idênticos conteúdos, sob pena de aplicação da multa prevista no art. 2º, inclusive nos casos de sucessivas replicações pelo provedor de conteúdo ou de aplicações."

On 25 January 2023, following Bolsonarists' invasion of public powers, De Moraes fined Telegram 1.2 million reals. He considered that the platform had not complied with judicial orders to suspend five accounts of Bolsonaro supporters.

This testifies to the new forms of vigilance democracies must develop in the digital context, as the fabric of public opinion, which democratic procedures are set to identify and implement, has changed, and the foundations of the very context for democratic practices as we know them are challenged. The analysis should not be one-sided, however. The digital environment offers means to strike back from all sides of the political spectrum. After the invasion of the major Brazilian political institutions by Bolsonarists in January 2023, social network accounts were created to identify these intruders. The Instagram account "Contragolpe Brasil", the Twitter account "Gado decider" have gained many followers. Their aim was to identify those who threatened democracy in Brazil. Users collaboratively denounced those they suspected to have participated in the events. Their names, pictures and addresses were published. More than 220 putschists were exposed in less than a fortnight. Although inspired by democratic values, this digital "denuncismo" is rather problematic from the viewpoint of basic constitutional principles that apply to penal procedure. It may also fuel revenge, political violence, radicalisation, and division.

2.4. Digital sovereignty

19. The Fourth Revolution has led to the appearance of private economic giants whose power sometimes overreaches that of full-blown sovereign states (or is at least able to compete with them).

[100] Resolution available at : https://www.tse.jus.br/++theme++justica_eleitoral/pdfjs/web/viewer.html?file=https://www.tse.jus.br/comunicacao/arquivos/resolucao-desinformacao/@@download/file/TSE%20-%20Resoluc%CC%A7a%CC%83o%20-%20Desinformac%CC%A7a%CC%83o%20-%20aprovada.pdf.

For example, in 2021, Australia decided to make internet giants pay for the newspapers content they display on their pages. This was the first law of this kind. It evidently threatened the firms' business model. Contrary to Google, which accepted the planned legislation, Facebook tried to resist. A few days before the bill was voted, it decided to limit access to content, articles, and videos of several Australian and international newspapers. Using an algorithm, it also blocked access to governmental pages, as well as the pages of hospitals which informed about the Covid crisis and the vaccination campaign. As several whistle-blowers revealed, the firm's aim was to express its disapproval of the debated legislation, and to avoid too strong an example to be set for other state legislation.[101]

The text was eventually adopted as the Treasury Laws Amendment (News Media and Digital Platforms Mandatory Bargaining Code) Act 2021.[102] But some amendments were introduced in the meantime in order to meet some of Facebook's demands. Instead of having to negotiate with all the editors under the state's supervision, the firm was allowed to negotiate agreements on the editor's remuneration on a case by case basis with the media it chose. Immediately after the aforesaid amendments were negotiated with the government, Facebook restored access to the blocked pages. This episode, whose involuntary character has been invoked by Facebook, at least testifies to the possibility for a private firm to defy a national legislator, and gives an idea of the kind of power it can have.

Confronted with a similarly inspired legislation in Canada - Bill C-18 aka the Online News Act - , Google announced in June 2023 that it would remove links to Canada news links as soon as the bill comes into force. Meta also announced it will cease to provide news products to Canadian Facebook and Instagram users.

20. Other examples of competition with state sovereignty can be identified. The most resounding one is of course Perry Barlow's Declaration of the Independence of Cyberspace in 1996. Directly borrowing from the grammar of the United States Declaration of Independence of 1776, it outspokenly called into question, from the vantage point of new technologies, the sovereignty of Westphalian States. According to some of the most radical elements of this document,

> "Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather. […] I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us. You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear."

It directly made clear the ambition to create a new world that would be beyond the control of traditional political authorities and, most of all, of traditional legal concepts through which empirical reality and social interactions are regimented:

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[101] N. Six, 'Australie : Facebook accusé d'avoir délibérément bloqué des pages gouvernementales pour epêcher le vote d'une loi', *Le Monde*, (May 2022).

[102] See https://www.accc.gov.au/focus-areas/digital-platforms/news-media-bargaining-code/news-media-bargaining-code#:~:text=The%20Treasury%20Laws%20Amendment%20(News,a%20significant%20bargaining%20power%20imbalance

> "We are creating a world that all may enter without privilege or prejudice accorded by race, economic power, military force, or station of birth.
> We are creating a world where anyone, anywhere may express his or her beliefs, no matter how singular, without fear of being coerced into silence or conformity.
> Your legal concepts of property, expression, identity, movement, and context do not apply to us. They are all based on matter, and there is no matter here.
> Our identities have no bodies, so, unlike you, we cannot obtain order by physical coercion. We believe that from ethics, enlightened self-interest, and the commonweal, our governance will emerge. Our identities may be distributed across many of your jurisdictions. The only law that all our constituent cultures would generally recognize is the Golden Rule. We hope we will be able to build our particular solutions on that basis. But we cannot accept the solutions you are attempting to impose."

21. Another original example that tended to dismiss the traditional sovereignty of the state, was the creation of Bitnation in 2014. It borrowed less from the language of independence than from the language of nationalism, which goes frequently hand in hand with the language of statehood. Based on the technology of blockchain, and later ethereum, it bluntly proposed to establish a new, virtual nation.[103] This crypto-nation, the first "Decentralized Borderless Voluntary Nation", intends to offer all the services a state traditionally provides, while simultaneously being based on everyone's free choice. It operates in a decentralised way, without borders, and ignoring the limitations that are intrinsic to the physical world. Users themselves certify the actions and transactions, resulting in an original citizenship, digital IDs, marriages, birth certificates, property certificates, and so on. Private platforms displace governments, replacing the logic of territorial sovereignty with a functional form of sovereignty.[104]

Bitnation is naturally based on a digital constitution, called "Pangea".[105] The first lines of this document read:

> "BITNATION-Constitution
> The constitution is meant to be a general framework that grows organically over time through contributions from citizens.
> This poem was found on the BITNATION forum a few weeks after BITNATION was created. It was posted anonymously. A few minor revisions have been made from the original poem, which we've integrated as the framework for our constitution.
> These 10 lines (each corresponding to an article) were preserved on the Ethereum blockchain in January 2016 during the creation of our Decentralized Borderless Voluntary Nation (DBVN) contract. The articles are intentionally broad because they'll live forever on the blockchain. However, we can continuously update the interpretation of what the articles mean, and how to implement them. Below, there's a list of links for further reading and additional resources.
> To contribute to the content of one of the articles, open an issue, or do a pull request.
> We are BITNATION.
> We are the Birth of a New Virtual Nation.
> We are a Future for Our World and Humanity.
> We are Sentinels, Universal and Inalienable.
> We are Creativity and Visionary.

[103] See https://futurism.com/bitnation-launches-worlds-first-virtual-constitution-virtual-nation/.
[104] F. Pasquale, 'From Territorial to Functional Sovereignty: The Case of Amazon', *Law and Political Economy* (December 2017), available at : https://lpeproject.org/blog/from-territorial-to-functional-sovereignty-the-case-of-amazon/
[105] See https://github.com/Bit-Nation/BITNATION-Constitution.

We are Rights and Freedoms.
We are Tolerant and Accepting.
We are Polity and Entity.
We are Privacy and Security.
We are Openness and Transparency.
We are a Dream and a Reality.
We are BITNATION."

Several articles follow, which give details as to the ten foregoing principles. These examples explain why several states have expressed concern about their own sovereignty.[106] In this perspective, for example, because it fears technology that is dominated by Western firms, Russia has adopted a Sovereign Internet Law or Sovereign RuNet Law. This results from amendment n° 608767-7 to federal act n° 90-FZ adopted on 1st March 2019, and intends to develop an entirely autonomous Russian network.[107] France has had the project to establish a "Commissariat à la souveraineté numérique".[108] Pursuant to Article 29 of the Digital Republic Act,[109] "The Government shall submit to Parliament, within three months of the promulgation of this Act, a report on the possibility of creating a Commissariat for Digital Sovereignty attached to the Prime Minister's office, whose missions shall contribute to the exercise, in cyberspace, of national sovereignty and the individual and collective rights and freedoms that the Republic protects. This report specifies the resources and organisation required for the operation of the Office of the Commissioner for Digital Sovereignty." This body never saw the light. This may testify to the difficulties that resorting to the word "sovereignty" in new contexts implies. As Nathalie A. Smuha for example explains, at least five dimensions overlap in the discussion about digital sovereignty in the European context: "the significant role of private actors in the public digital sphere, interference by foreign actors, Europe's rule of law crisis, the risk of poor digital governance, and the lack of digital literacy."[110]

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[106] A. Chander and H. Sun, 'Sovereignty 2.0', *Vanderbilt Law Review,* Vol. 55 (2023), p. 283, available at: https://scholarship.law.vanderbilt.edu/vjtl/vol55/iss2/2 ; H. Roberts, E. Hine and L. Floridi, 'Digital Sovereignty, Digital Expansionism, and the Prospects for Global AI Governance', *Quo Vadis, Sovereignty?: New Conceptual Boundaries in the Digital Age of China* (2023), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4483271

[107] See e.g. A. Litvinenko, 'Re-Defining Borders Online: Russia's Strategic Narrative on Internet Sovereignty', *Media and Communication*, Vol. 9 (2021), pp. 5-15 ; [Interview] 'Russian digital sovereignty: 5 questions to kevin limonier', available at : https://www.sciencespo.fr/public/chaire-numerique/en/2022/10/20/interview-russian-digital-sovereignty-in-5-questions-with-kevin-limonier/ ; [Interview] 'The specificities of the Russian digital sovereignty agenda: 3 questions to Marie-Gabrielle Bertran', available at ! https://www.sciencespo.fr/public/chaire-numerique/en/thematic-research/digital-and-data-sovereignty/.

[108] See e.g. P.-Y. Quiviger, 'Une approche philosophique du concept émergent de souveraineté numérique', *Nouveaux Cahiers du Conseil constitutionnel*, no. 57 (2017), pp. 25-28 ; B. Benhamou, 'Les dimensions internationales de la souveraineté numérique', *Nouveaux Cahiers du Conseil constitutionnel*, no. 57 (2017), pp. 87-92 ; V. Martin, 'La République numérique en débat au Parlement : le projet de commissariat à la souveraineté numérique', *Nouveaux Cahiers du Conseil constitutionnel*, n° 57 (2017), pp. 107-120 ; P. Türk, 'Définition et enjeux de la souveraineté numérique' (Vie Publique, September 2020), available at : https://www.vie-publique.fr/parole-dexpert/276125-definition-et-enjeux-de-la-souverainete-numerique ; Sénat, Commission d'enquête sur la souveraineté numérique, *Rapport* (October 2019), available at : https://www.senat.fr/espace_presse/actualites/201909/commission_denquete_sur_la_souverainete_numerique.html ; P. Türk and Christian Vallar, *La souveraineté numérique : le concept, les enjeux* (Paris: Mare & Martin, 2017), 239 p. ; P. Türk, 'La souveraineté des Etats à l'épreuve d'Internet', *Revue du droit public* (2013), p. 1489 ; A. Blandin-Obernesser, *Droits et souveraineté numérique en Europe* (Bruxelles: Bruylant, 2016) ; P. Bellanger, *La souveraineté numérique* (Paris : Stock, 2014) ; E. Celeste, 'Digital Sovereignty in the EU: Challenges and Future Perspectives', in *Data Protection beyond Borders: Transatlantic Perspectives on Extraterritoriality and Sovereignty*, F. Fabbrini, E. Celeste and J. Quinn (Hart, 2021), pp. 211-228 ; B. Brunessen, 'La souveraineté numérique européenne: une « pensée en acte »?', *Revue trimestrielle de droit européen* (2021), pp. 249.

[109] Loi n° 2016-1321 du 7 octobre 2016 pour une République numérique.

[110] A.N. Smuha, *Digital Sovereignty in the European Union: Five Challenges from a Normative Perspective* (July 2023), available at : http://dx.doi.org/10.2139/ssrn.4501591

2.5. A constitutional charter of digital fundamental rights for France

22. In France, constitutional review had a rather chaotic and slow development before it became part of the domestic constitutional culture under the Fifth Republic.[111] As Charles Eisenmann once clarified, any form of "review" implies the existence of (1) a parameter, which is the benchmark to assess the qualities of an object, and (2) an object, which is compared with the parameter.[112] Contrary to what is commonly assumed, the parameter of constitutional review is not necessarily the text of the constitution. It is sometimes more than this text, as it may for example include unwritten principles, supranational norms, or religious norms. It is sometimes less than the constitutional text, as only some of its provisions may be relevant to assess the validity of specific kinds of norms according to specific forms of litigation. For example, constitutional litigation relating to conflicts of powers between state authorities is examined only in light of the constitutional provisions that grant powers to national institutions (horizontal separation of powers), and to national and local institutions (vertical separation of powers).[113]

In France, under Article 61-1 of the Constitution, the preliminary ruling of unconstitutionality does not involve the whole text of the constitution but only the provisions that confer fundamental rights. These may result not only from the text of the constitution of 1958, but from a more general "constitutionality block."[114] This compound of constitutional norms especially consists of the texts to which the preamble of the Constitution refers: the Declaration of the Rights of Man and the Citizen of 1789, the preamble of the Constitution of 1946, and the Charter for the Environment of 2004. In the context of the discussion of a constitutional amendment in 2018, some MPs proposed to add to this list a "Charte du numérique".[115] According to this text, France's most fundamental norm would have provided:

> "« Le peuple français,
> « Considérant :
> « Que le numérique prend une importance déterminante pour l'humanité en raison des transformations qu'il induit ;
> « Que les principes d'un internet neutre, ouvert et non-centralisé doivent être défendus ;
> « Que les technologies numériques représentent un vecteur de progrès pour l'humanité mais aussi un enjeu pour la souveraineté du Peuple, pour l'exercice de la vie démocratique,la liberté des personnes et l'indépendance des institutions ;
> « Que l'égalité des personnes et des territoires face au numérique est un objectif que l'État doit rechercher ;
> « PROCLAME :
> « Art. 1 er . – La loi garantit à toute personne un droit d'accès aux réseaux numériques libre, égal et sans discrimination.
> « Art. 2. – Dans les limites et les conditions fixées par la loi, les réseaux numériques sont développés dans l'intérêt collectif et respectent le principe de neutralité qui implique un trafic libre et l'égalité de traitement.

[111] G. Tusseau, 'The Evolution and *Gestalt* of the French Constitution', in *Ius Publicum Europaeum*, Vol. 2, A. von Bogdandy, P.M. Huber, P. Cruz Villalón and S. Ragone (Oxford: Oxford University Press, forthcoming).
[112] C. Eisenmann, 'Le contrôle juridictionnel des lois en France', *in C. Eisenmann, Écrits de théorie du droit, de droit constitutionnel et d'idées politiques*, C. Leben, (Paris : Éditions Panthéon-Assas, coll. Les introuvables, 2002) pp. 525-541, p. 536.
[113] G. Tusseau, *Contentieux constitutionnel comparé. Une introduction critique au droit processuel constitutionnel* (Paris La Défense : Lextenso, 2021), pp. 719-788.
[114] Conseil constitutionnel, Décision n° 71-44 DC du 16 juillet 1971.
[115] See https://www.assemblee-nationale.fr/dyn/15/amendements/0911/AN/2343.

« Art. 3. – Le numérique facilite la participation de toute personne à la vie publique, à la viedémocratique, à l'expression des idées et des opinions.

« Art. 4. – Toute personne a le droit, dans les limites et les conditions fixées par la loi, d'accéder aux informations détenues par les autorités publiques ou utiles à un débat d'intérêt public et de les réutiliser.

« Art. 5. – La loi garantit à toute personne la protection des données à caractère personnel qui la concernent et le contrôle des usages qui en sont faits.

« Art. 6. – Toute personne a le droit à l'éducation et à la formation au numérique et à son utilisation.

« Art. 7. Toute personne a le droit à une alternative aux procédures dématérialisées dans ses relations avec le service public.

« Art. 8. – La présente Charte inspire l'action européenne et internationale de la France. »"

This text was finally rejected, as other attempts in the same direction had been previously. Another more recent attempt more precisely targeted artificial intelligence and algorithms.[116] It was rejected as well.

[116] Proposition de loi constitutionnelle n° 2585 relative à la Charte de l'intelligence artificielle et des algorithmes, available at : https://www.assemblee-nationale.fr/dyn/15/textes/l15b2585_proposition-loi#:~:text=Cette%20loi%20vise%20donc%20%C3%A0,l'Homme%20dans%20leur%20ensemble :

"Article 1er

Le premier alinéa du Préambule de la Constitution est complété par les mots : « et la Charte de l'intelligence artificielle et des algorithmes de 2020 ».

Article 2

La Charte de l'intelligence artificielle et des algorithmes est ainsi rédigée :

« Lorsqu'en 1865, Jules Verne fait publier son De La Terre A La Lune, il imagine une aventure qui se réalisera cent quatre années plus tard. Il suggère une technologie qui n'existe pas encore.

« En 1942, à son tour Isaac Asimov publie Runaround, une fiction où les robots sont soumis à « trois lois ». Il imagine un monde où des machines connectées en réseaux sont capables d'interagir avec les humains. Dès lors, elles doivent être limitées et soumises à une éthique répondant éventuellement de leurs actes.

« Les artistes et les scientifiques interpellent les citoyens.

« En Europe et en France notamment, l'approche des droits humains a une portée universelle, fondée sur un idéal. Ainsi la Déclaration universelle des droits de l'Homme du 10 décembre 1948 vise à lutter contre la barbarie et à proclamer cet idéal.

« Le législateur doit se saisir de ces questions majeures et de leurs enjeux potentiels.

« C'est pourquoi cette loi a pour ambition de prévenir un retard irrattrapable dû à des outils créés par quelques individus mais impactant le plus grand nombre. Dès lors, lorsque la réalité rejoint la fiction, les marges de manœuvre sont diminuées. Parfois, les avancées sont tellement intégrées à notre quotidien de citoyen qu'elles ne permettent plus d'imaginer de vivre sans elles. Les citoyens deviennent des êtres humains assistés ou augmentés sans avoir exprimé un choix éclairé.

« Au même titre que les virus s'intègrent au long cours au patrimoine génétique des humains, les technologies du quotidien entrent de fait dans les réflexions. Or après l'ignorance, la plupart de nos réactions confinent au dédain l'analyse des avancées technologiques. Cette loi vise donc à interpeller tout à chacun quant à son rôle et sa responsabilité, ses droits et ses devoirs, pour être acteur et garant de ses libertés.

« En conclusion, se positionner sur les algorithmes revient à protéger les droits de l'Homme dans leur ensemble. Il y a des choix qui sont irréversibles et aujourd'hui dans à l'Assemblée nationale, nous sommes à l'aube de l'un d'entre eux.

« Ce sont les raisons pour lesquelles nous proclamons :

« Art. 1er. – La présente charte s'applique à tout système qui se compose d'une entité qu'elle soit physique (par exemple un robot) ou virtuelle (par exemple un algorithme) et qui utilise de l'intelligence artificielle. La notion d'intelligence artificielle est entendue ici comme un algorithme évolutif dans sa structure, apprenant, au regard de sa rédaction initiale.

« Un système tel que défini au précédent alinéa n'est pas doté de la personnalité juridique et par conséquent inapte à être titulaire de droits subjectifs. Cependant les obligations qui découlent de la personnalité juridique incombent à la personne morale ou physique qui héberge ou distribue ledit système devenant de fait son représentant juridique.

« Art. 2. – Un système tel que défini à l'article premier :

« – ne peut porter atteinte à un être ou un groupe d'êtres humains, ni, en restant passif, permettre qu'un être ou un groupe d'êtres humains soit exposé au danger ;

« – doit obéir aux ordres qui lui sont donnés par un être humain, sauf si de tels ordres entrent en conflit avec le point précédent ;

« – doit protéger son existence tant que cette protection n'entre pas en conflit avec les deux points précédents.

« Art. 3. – Tout système est initialement conçu pour satisfaire la mise en application pleinement effective des articles de la Déclaration universelle des droits de l'Homme du 10 décembre 1948.

« Art. 4. – L'hébergeur ou l'émetteur de diffusion du système tel que défini à l'article 1er déterminent la nationalité de celui-ci. Dès lors qu'un système rentre dans la définition de l'article 1er et se destine à être utilisé sur le territoire français, l'hébergeur ou l'émetteur du dit système doit en déterminer la nationalité.

2.6. State intervention in the digital environment

23. In Israel, in September 2015, a cyber-enforcement unit was established in the Ministry of Justice to fight cybercrime. On the one hand, pursuant to the Authorities for the Prevention of Committing Crimes through use of an Internet Site Law, 5777-2017, the Cyber Department is entitled to apply for an order from a District Court judgeinstructing providers of access, searches and storage of content on the internet to remove or restrict access to content such as content organising or conducting of illegal gaming, lotteries or betting, publishing paedophilic content, publishing prostitution services, or trafficking in dangerous drugs.

On the other hand, the Cyber Department can directly ask platforms (online social networks, online search engines or providers of hosting services) to take measures against problematic contents or behaviours. As it is summarised by the Supreme Court, the procedure is as follows:

> "when the Department takes notice of information concerning a publication that, prima facie, violates Israeli law (whether included in the Prevention of Crimes Law, or not included in that Law), the staff of the Department refers the matter to the attention of the internet platform operators, by means of a structured mechanism for reporting harmful publications, that a prima facie offense is being committed on the infrastructure that it operates. The internet platform operators, in turn, address the report and decide, at their independent discretion, how to act and what to do in regard to the said report – whether to restrict access to that publication, remove it, block the user who violated their 'user rules' in regard to publication, or not to take any action. Occasionally, according to the 2015 Summary, the report leads the internet platform operators to suspend or remove the user who published the prohibited expression that was the subject of the report" (§9).

The procedure is regulated by a Work Procedure whose content has not been made public. The Cyber Department claims to rely on three cumulative criteria. First, the content must constitute a prima facie offence. Secondly, the content violates the platform's terms of use, attention being paid to considerations such as the circulation of the publication, its severity, how it may be interpreted by its addressees. Thirdly, "The balancing conducted by the Cyber Department between the values of freedom of expression and access to information on the net as opposed to the values of the constitutional right to privacy, dignity and the reputation of the subject of the publication, as well as the public interest, justifies issuing the report so that the online platform operators will consider whether to remove the publication rather than leave it on the net" (quoted § 11). This second procedure is mostly used in the context of terrorist threat, protection of minors, protection of civil servants, and protection of the integrity of the Knesset elections.

« Art. 5. – Il est nécessaire de mettre en place un système d'audit dont la fréquence de mise en œuvre est fondée sur celle d'évolution vers une autonomie décisionnelle du ou des algorithmes composant le système tel que défini à l'article premier.

« Art. 6. – Aucune disposition de la présente Charte ne peut être interprétée comme impliquant, pour un État, un groupement ou un individu, un droit quelconque de se livrer à la création d'un système tel que décrit à l'article premier visant à la destruction des droits et libertés qui sont énoncés dans la présente Charte. » "

24. In case HCJ 7846/19, *Adalah Legal Center for Arab Minority Rights in Israel v. State Attorney's Office – Cyber Department* (2021), the petitioners, who had previously tried unsuccessfully, were trying to have this second procurement abolished. Their claim mostly relied on the threat of leaving it to the administration – instead of a court – to decide what content to target represented for due process and freedom of expression, without meeting the conditions foreseen in Article 8 of the Basic Law: Human Dignity and Liberty. They underscored the lack of statutory authority for this procedure, as well as the fact that it unduly limits freedom of expression. Removing or restricting publication limits the publishers' rights, as well as the potential receivers' rights. The defendant replied that the Department's authority could be based on the government's residual power under Article 32 of Basic Law: The Government. The Department's expertise in cyberoffences and its action in the public interest made it a reliable actor in the field. Moreover, the procedure remained totally voluntary for the platforms, and decisions were taken according to the platform's own rules. As a consequence, it could not be regarded as a governmental act.

The three-judge bench's majority based its analysis on Jack M. Balkin's triangular conception of free speech, involving the state, online platform operators, and end users.[117] It rejected the claim that no governmental authority was involved. According to the majority, this authority was duly based on the residual powers, so that the Cyber Department's activities could not be found unconstitutional on this ground (§ 62). As to the possible violation of a fundamental right, Deputy President H. Melcer considered that

> "The situation of enforcement in regard to social networks is unique and differs in its very nature from the constitutional or classic administrative paradigms in which the individual stands in opposition to the government […]. As Prof. Balkin describes it, on questions of freedom of expression and other issues in the scientific age, there is a *triangular relationship*: The state is at one vertex, the private internet companies and various platforms are at another vertex, while the speaking individual (or organization) is at the third [. In] such a unique power *triangle*, where the state does not demand or impose removing or restricting expression, and *the online platform operator* is the one who removes the publication at its discretion, it cannot be said that it is the state that infringes the right, and in any case, those harmed have other remedies, including against the online platform operators. […] In the present case, the state's involvement in protecting or restricting political expression is slight, as it plays no role in providing the infrastructure for political expression (which is provided, as noted, by the online platform operators)" (§ 65).

He concluded:

> "In my opinion, as long as it has not been proven that it is the activities of the Cyber Department that directly and certainly lead to a violation of fundamental rights, and as long as no evidentiary foundation has been laid showing that the discretion of the online platform operators is not *actually* independent, a voluntary referral from the Department to the online platform operators is not prohibited. In these cases, it is difficult to view the authority's actions as a form of intentional infringement of fundamental rights in a manner that would negate the authority of the Cyber Department to act to frustrate publications that amount to a prima facie criminal offense" (§ 69).

[117] J. M. Balkin, 'Free Speech is a Triangle', *Columbia Law Review* (2018). See also J.M. Balkin, 'Information Fiduciaries and the First Amendment', *UCDL Review* (2015), p. 1183 ; J.M. Balkin, 'Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation', *UCDL Review* (2018), pp. 1149-1210 ; J.M. Balkin, 'The Fiduciary Model of Privacy', *Harvard LR* (2020), p. 11.

At the end of his opinion, he nevertheless issued a series of recommendations to the State authorities (§§ 73-74):

> "A) The Cyber Department should consider what was stated in the Movement's request to join, which described a series of defects in the Department's work, among them: a lack of documentation of the content of the publications that the Cyber Department seeks to remove, inadequate details in the transparency reports produced by the Department, and the non-publication of the Work Procedure (for example: the type of criminal offense grounding the voluntary act; a more detailed account of the alleged offenses related to the publication; the identity of the publisher and its relationship to the State of Israel, to the extent known to the Department). In addition, there is a problem in clarifying the role of the online platform operators (which might have been clarified had those operators been joined as respondents to the petition), and the agreements between them and the Department.
>
> In view of the fact that most of the Cyber Department's activity concerns security offenses, exposing the full extent of the Department's activity certainly presents a problem. However, I believe that the Cyber Department should present paraphrases and examples of the character of the referrals it sends and its discussions with the online platform operators in its transparency reports.
>
> B) In making its referrals to the online platform operators, the Department should guide itself in accordance with the case law of this Court, which constitutes law that supersedes residual authority in this regard, including the judgments given in CrimFH 7383/08 *Ungerfeld v. State of Israel* [37]; LCrimA 5991/13 *Segal v. State of Israel* [38]; LCrimA 7052/18 *State of Israel v. Rotem* [39] (further hearing pending)).
>
> C) A legislative initiative should be weighed to provide a detailed arrangement for the voluntary enforcement mechanism, as has been done in some other countries.
>
> 74. Another argument, which was not addressed in the framework of this petition, is the need for establishing a post facto oversight and supervision mechanism for the Department's activities, and it is recommended that this be considered (on the need for regulating the sphere of activity of actors on the internet in terms of procedure and proper constitutional balances, see my opinion in the Premier League case)."

The balance between free speech and other public interests thus remains rather unsettled, and calls for renewed institutional efforts.

2.7. Neuronal autonomy

25. Whereas the process to adopt a new constitution was on its way, the Chilean 1980 constitution was amended on 25 October 2021. A new indent was added to Paragraph 1 of Article 19 of the Constitution, which contains a rich enumeration of fundamental rights.[118] According to the new text, resulting from Act 21 383,

[118] See e.g. A. Zúñiga-Fajuri, L. Villacivencio Miranda, D. Zaror Miralles and Ricardo Salas Venegas, 'Neurorights in Chile: Between Neuroscience and Legal Science', in *Regulating Neuroscience. Transnational Legal Challenges*, M. Hevia (Amsterdam: Academic Press, 2021), pp. 165-179. See more generally M. Ienca, J.J. Fins, R.J. Jox et al. , 'Towards a Governance Framework for Brain Data', *Neuroethics*, Vol. 15 (2022), available at : https://link.springer.com/article/10.1007/s12152-022-09498-8 ; C. Baselga-Garriga, P. Rodriguez and R. Yuste, 'Neuro Rights. A Human Rights Solution to Ethical Issues of Neurotechnologies', in *Protecting the Mind* (Springer, 2022), pp. 157-161 ; M. Ienca, 'On Neurorights', *Frontiers in Human Neuroscience,* Vol. 15, (2021), p. 15; M. Ienca and R. Andorno, 'Towards New Human Rights in the Age of Neuroscience and Neurotechnology', *Life Sciences, Society and Policy*, Vol. 13 (2017) ; P. Kellmeyer, 'Neurorights: A Human Rights Based Approach for Governing Neurotechnologies', in *The Cambridge Handbook of Responsible Artificial Intelligence* (2022) ; J.A. Álvarez Díaz, J.D. Macías Sierra, M. de J. Medina Arellano and F. Romay Hidalgo, *Neuroética, neuroderecho e inteligencia artificial* (UNAM, 2023) ; M.R. Allegri, 'Costituzionalizzare I neurodiritti?' (Associazione Italiana dei Costituzionalisti 2023), available at : https://www.associazionedeicostituzionalisti.it/it/la-lettera/05-2023-costituzione-e-intelligenza-artificiale/costituzionalizzare-i-neurodiritti ; C. Fernández-Aller, C. Roveri and S. Nardini, 'El uso ético de la inteligencia artificial y las neurotecnologías', in *Derechos digitales en Iberoamérica: situación y perspectivas* (Madrid: Fundación Carolina y Telefónica, 2023), pp. 43-80.

> "El desarrollo científico y tecnológico estará al servicio de las personas y se llevará a cabo con respeto a la vida y a la integridad física y psíquica. La ley regulará los requisitos, condiciones y restricciones para su utilización en las personas, debiendo resguardar especialmente la actividad cerebral, así como la información proveniente de ella."

For the first time in the world's history, "neurorights" appear side by side with other very classical fundamental rights such as the right to life and to the physical and mental integrity of the person, the right to equality, respect and protection of the private life and honour of the individual and his family, and specifically, the protection of his personal data, the inviolability of the home and of all forms or private communication, the freedom of conscience, freedom of expression, freedom of information, the right to personal freedom and to individual security, the right to assemble peacefully without prior permission and unarmed, freedom of association, and so on.

The Senators who drafted the constitutional amendment also drafted a more precise legislation to implement the new fundamental right. The "Proyecto sobre la protección de los neuroderechos y la integridad mental, y el desarrollo de la investigación y las neurotecnologías" has not been adopted yet.[119] Its preamble identifies two dimensions of "neurorights": "la privacidad mental, es decir, que por ejemplo los datos del cerebro de las personas se traten con una confidencialidad equiparable a la de los de los trasplantes de órganos. Y el segundo, el derecho a la identidad, manteniendo la individualidad de las personas." Technology allows for the identification of the images in which an individual thinks. The perspectives for health, especially of paralysed individuals, are wide, as the brains' activity can be identified and processed to artificial organs that can be transplanted on a wounded body. An algorithm is able to identify the signals produced by the brains of obese people and control addictions. But from reading in a brain's activity to writing preferences into it, the limit is fuzzy. Not only one's privacy is at stake, but the very possibility to make free choices can be affected. Patients and consumers are among the categories whose autonomy is the most at risk. Political manipulation, as well as military uses are not excluded, and also raise great concern. This is all the more true as artificial intelligence is somehow capable of anticipating our choices, our intentions. It may become very intrusive in the development of our consumer choice, but also in our intimate choices.[120] At least partially, the technology can decode the activity of our brain, which becomes the new battleground of digital constitutionalism.[121]

Emotional AI is especially relevant here.[122] Related to this issue, Article 25.1 of the Digital Services Act provides that: "Providers of online platforms shall not design, organise or

[119] See https://www.camara.cl/legislacion/ProyectosDeLey/tramitacion.aspx?prmID=14385&prmBOLETIN=13828-19

[120] A. Rouvroy, ' « Des données et des hommes ». Droits et libertés fondamentaux dans un monde de données massives", *T-PD-BUR(2015)09REV* (Council of Europe, 2016), pp. 9-10, available at : https://rm.coe.int/16806b1659

[121] See especially N. A. Farahany, *The Battle for Your Brain: Defending the Right to Think Freely in the Age of Neurotechnology* (St. Martin's Press, 2023).

[122] A. McStay, *Emotional AI. The Rise of Empathic Media* (London, Sage, 2018) ; T. Karppi et al., 'Affective Capitalism: Investments and Investigations', *Ephemera: Theory & Politics in Organization*, Vol. 16 (2016), pp. 1-13, available at : https://ephemerajournal.org/sites/default/files/2022-01/16-4editorial.pdf ; Commission nationale consultative des droits de l'homme, Avis relatif à l'impact de l'intelligence artificielle sur les droits fondamentaux A-2022-6 (7th April 2022), pp. 14-15, available at : https://www.cncdh.fr/publications/avis-relatif-limpact-de-lintelligence-artificielle-sur-les-droits-fondamentaux-2022-6#:~:text=Avis%20relatif%20%C3%A0%20l%E2%80%99impact%20de%20l%E2%80%99intelligence%20artificielle%20sur,pour%20un%20encadrement%20juridique%20ambitieux%20pour%20l%27intelligence%20artificielle. ; A.B. Muñoz Ruiz, *Biometría y sistemas automatizados de reconocimiento de emociones: Implicaciones Jurídicos-Laborales* (Valencia: Tirant lo Blanch, 2023).

operate their online interfaces in a way that deceives or manipulates the recipients of their service or in a way that otherwise materially distorts or impairs the ability of the recipients of their service to make free and informed decisions." Professor Nita Farahany cautions against the risk of "brainjacking."[123] She advocates a right to cognitive liberty, which "would protect our freedom of thought and rumination, mental privacy, and self-determination over our brains and mental experiences."[124]

Five new fundamental rights are identified in this perspective.[125] They are meant to face the developments of scientific expertise regarding the human brain and artificial intelligence which today allow a computer to read a brain's activity:

> "- Derecho a la privacidad mental (los datos cerebrales de las personas)
> - Derecho a la identidad y autonomía personal
> - Derecho al libre albedrío y a la autodeterminación
> - Derecho al acceso equitativo a la aumentación cognitiva (para evitar producir inequidades)
> - Derecho a la protección de sesgos de algoritmos o procesos automatizados de toma de decisiones."

This is the reason why the bill's intention is presented as follows:

> "Ahora bien, el objetivo de la inédita propuesta legal, es regular el contenido del derecho a la neuroportección o nueroderechos establecido en la reforma constitucional correspondiente. Para ello, el presente proyecto de ley posee un marcado anclaje en la dignidad humana como meta principio subyacente al que debe siempre mirar la neurotecnología, incorporando además, un elemento de igualdad de acceso frente al desarrollo de la técnica, que se materializa a través del igual acceso al aumento de la capacidad mental, para evitar cualquier atisbo de diferenciaciones arbitrarias, e ilícitas.
>
> Asimismo, se establecen catálogo de definiciones, avanzando hacia un marco conceptual sobre la materia, es por ello que se definen conceptos como "neurotecnología", "interfaz cebero computadora" y "datos neuronales". Además, se establecen disposiciones para proteger los neuroderechos y la integridad mental, estableciendo como norma eje, la prohibición de cualquier forma de intervención de conexiones neuronales o cualquier forma de intrusión a nivel cerebral mediante el uso de neurotecnología, interfaz cerebro computadora o cualquier otro sistema o dispositivo, **sin contar con el consentimiento libre, expreso e informado, de la persona o usuario del dispositivo, inclusive en circunstancias médicas**. Aun cuando la neurotecnología posea la capacidad de intervenir en ausencia de la conciencia misma de la persona.
>
> Finalmente, el proyecto establece reglas mínimas a la que deben sujetarse las investigaciones en el campo de la neurotecnología, estableciendo siempre como norte el respeto por la dignidad humana, estableciéndose, además, el deber en el Estado de fomentar las investigaciones y garantizar el acceso igualitario a los avances de la ciencia."

Fundamental constitutional values seem at stake, and in need of new developments to limit the possible impact of new technologies.

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[123] N. A. Farahany, *The Battle for Your Brain: Defending the Right to Think Freely in the Age of Neurotechnology* (St. Martin's Press, 2023).
[124] Z. Corbyn, [Interview] : Prof. Nita Farahany : 'We need a new human right to cognitive liberty' (The Guardian, March 2023), available at : https://www.theguardian.com/science/2023/mar/04/prof-nita-farahany-we-need-a-new-human-right-to-cognitive-liberty
[125] See also R. Yuste, S. Goering, B. Arcas et al., 'Four ethical priorities for neurotechnologies and AI' *Nature*, no. 551 (2017) ; Organización de los Estados americanos, *Declaración sobre Neurociencia, Neurotecnologías y Derechos Humanos: Nuevos Desafíos Jurídicos para las Américas*, CJI/DEC. 01 (XCIX-O/21), (August 2021), available at : https://www.oas.org/es/sla/cji/docs/CJI-DEC_01_XCIX-O-21.pdf

2.8. Crowdsourced constitutionalism

26. Iceland has tried an experiment in crowdsourced constitutionalism and constitutionalism 2.0 all at once.[126] This state, seriously affected by the economic crisis, decided, after several decades of right-wing party domination and the election of a coalition between the left and the ecologists, to revise its constitution and break with traditional political patterns. It is notably through the tools offered by information and communication technologies that Iceland embarked on the path of drafting a new constitution in 2009-2010. A citizens' assembly of 1,500 people, 1,200 of whom were selected by lot, identified the main values shared by Icelanders and, in so doing, identified the fundamental themes for a revision of the constitution (separation of powers, accountability of executive power, development of referenda).

Then, the National Forum, made up of 950 citizens chosen by lot, drew up guidelines for limiting power, identifying the role of the head of state, securing the independence of the judiciary, or defining the ownership of natural resources. Subsequently, from November 2010, 25 citizens who were not 'specialists' in politics, were elected by their compatriots from among 522 candidates from the Forum. They worked on proposals and submitted their reflections to the population through a Facebook page, a Flickr photo account, a YouTube channel, and a Twitter account. 3,600 comments were received, 370 proposed amendments were discussed on YouTube. The aim was to entrust them with the elaboration of the draft that was to be discussed and voted on by the parliament, in accordance with Article 79 of the Constitution. The participation of the Icelanders was thus substantial. The votes of the "Constitutional Council" of the 25 were public and explained, broadcast live. The basic features of the draft Constitution were put to the people in a consultative referendum on 20 October 2012. The people adopted it by a two-thirds majority, voting on issues such as natural resources, the national church, the democratic system, the possibility of popular initiative referenda, the voting system, and so on. The debate was particularly rich and the proposed constitution would have strengthened direct democracy and reformed the electoral system. Significantly, it would have proclaimed a right to the Internet.

According to Yves Sintomer, this process “constitutes one of the most successful examples of constitutional revision in democratic history, with this very specific mix of lottery, election, online contributions and referendum, against a background of social mobilisation, citizen participation and quality deliberation.”[127] But this was not without difficulties. The first appointment of the 25 Constituents was overturned by the Supreme Court on 25 January 2011 in a highly contested and weakly reasoned decision, so that Parliament had to reappoint them. Parliament did so in the form of a Constitutional Council composed of the 25 people who had received the highest number of votes in the invalidated election. The members had

[126] See more precisely A. Abat i Ninet, *Constitutional Crowdsourcing. Democratising Original and Derived Constituent Power in the Network Society* (Cheltenham: Edward Elgar, 2021) ; Á. Þ. Árnason and C. Dupré, *Icelandic Constitutional Reform. People, Processes, Politics* (Routledge, 2021) ; J. Gluck and B. Ballou, ‘New Technologies and Constitution-Making’, in *United States Institute of Peace Special Report* (2013) ; H. Lademore, ‘Inclusive Constitution-Making: the Icelandic Experiment’, *Journal of Political Philosophy* (2014) ; B.T. Bergsson and P. Blokker, ‘The Constitutional Experiment in Iceland’, in *Verfassungsgebung un konsolidierten. Neubeginn oder Verfall eines Systems?*, K. Pocza (Baden-Baden, 2013).

[127] Y. Sintomer, *Petite Histoire de l’expérimentation démocratique. Tirage au sort et politique d’Athènes à nos jours* (Paris: La Découverte, 2011), p. 184.

no official political affiliation. They were lawyers, journalists, academics, men, women, farmers, pastors, students, museum directors, radio hosts, etc. Moreover, the referendum was only consultative, and the text had to be confirmed by the classic Parliament.

However, the political authorities in place refused to put this text on the agenda of their debates. The 2013 legislative elections brought back the conservative majority responsible for the crisis. The project was abandoned. They even tightened the conditions for a future constitutional revision, drawing accusations of betrayal and torpedoing a previously unseen participatory enterprise.

27. This type of initiative has nevertheless been emulated. In Ireland, for example, a 100-person Constitutional Consultative Convention, made up of one-third parliamentarians appointed by the political parties and two-thirds citizens chosen to represent the different sensibilities of the population according to criteria such as gender, age, religion, end soon, worked from December 2012 onwards to propose amendments to the 1937 constitution to Parliament. Its work was largely interactive and made extensive use of new technologies. The Convention's conclusions were delivered on 31 March 2014. Its work dealt with difficult topics such as environmental law, political participation, economic and social rights, the definition of the family, the separation of church and state, or same-sex marriage, all of which are essential in a predominantly Catholic society. The government had committed itself to formally considering each of the proposals. In fact, two constitutional amendments were submitted to the people. One, allowing same-sex marriage, was adopted, whereas the other, lowering the age of eligibility for the Presidency from 35 to 21, was rejected.

2.9. European digital constitutionalism

28. With respect to the regulation of online speech, two broad orientations have been identified and carefully exposed by scholars like Giovanni De Gregorio[128] and Oreste Pollicino.[129]

On one side of the spectrum, the United States has adopted a very liberal approach. They have been adamant that, offline as well as online, free speech is to be protected as much as possible. In constitutional terms, this is why the First Amendment, according to which "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances," prevails. These principles have been implemented in Section 230 of the Decency Communications Act. Pursuant to that text, "No provider or user of an interactive computer

[128] See G. de Gregorio, 'The Rise of Digital Constitutionalism in the European Union', *International Journal of Constitutional Law*, Vol. 19 (2021), pp. 41-70 ; G. de Gregorio, 'Digital constitutionalism across the Atlantic', *Global Constitutionalism*, Vol. 11-2 (2022), pp. 297-324 ; G. de Gregorio, *Digital Constitutionalism in Europe. Reframing Rights and Powers in the Algorithmic Society* (Cambridge: Cambridge UP, 2022), 366 p.

[129] See also e.g. O. Pollicino, *Judicial Protection of Fundamental Rights on the Internet. A Road Towards Digital Constitutionalism?* (Oxford: Hart, 2021) ; M. K. Land, 'A Human Rights Perspective on US Constitutional Protection of the Internet', in *The Internet and Constitutional Law: The Protection of Fundamental Rights and Constitutional Adjudication in Europe*, O. Pollicino and G. Romeo, (London: Routledge, 2016), pp. 48-70.

service shall be treated as the publisher or speaker of any information provided by another information content provider."[130] This "safe harbor doctrine," which is maintained as a matter of principle in the European Digital Services Act (art. 4 to 10), allowed platforms to develop without being responsible for the contents that were transmitted, however illegal or problematic these might be. Platforms are analysed as strictly passive and neutral intermediaries through which third parties' contents are conveyed. This helped economic development and innovation. In a constitutional perspective, it also permitted the platforms to consolidate their own governance of what is or not sent, and present or absent, on the services they provide, and how it is transmitted.[131]

This had major effects in constitutional terms. First, as with offline speech,[132] the expression of hate speech and fake news as such is not perceived as intrinsically illegitimate or problematic. Offensive discourse, which may conflict with fundamental constitutional values such as equality, non-discrimination, or human dignity, is thus protected. Secondly, by prohibiting state interference with online free speech, this general attitude left it to the platforms themselves, i.e. private firms, legitimately moved by their economic performance rather than by constitutional values like tolerance, democracy, equality, pluralism, or freedom, to regulate what has become the contemporary equivalent of the public forum. It is for the platforms themselves to set the rules of the game, for example to determine the limits of free speech, exclude some users, delete some discourse, or suspend some accounts. Regulation fundamentally takes the appearance of content moderation. This process can be defined as "the screening, evaluation, categorization, approval or removal/hiding of online content according to relevant communications and publishing policies."[133] Most of the time, this regulation is operated in an automated way by algorithms, whose operation is opaque. *De facto*, this resulted in a wide transfer of power from public to private entities, without basic guarantees of popular control, transparency, accountability, or due process being present. Third, for technical reasons, platforms enjoy a power that is very hard for the state to control, including when basic public constitutional values are at stake.

29. On the other side of the spectrum, the European Union has decided to adopt a more activist perspective. In light of the impact of new technologies on the Union's most fundamental values, it developed a strategy which the aforementioned authors present as a constitutional one. Digital actors were understood as enjoying power, so that they naturally needed to face a counter-power, according to the logic of the constitutional paradigm. Its aim is to control and limit the power dynamics that is intrinsic to the use of new technologies in order to channel its impact on fundamental rights. The European Court of Justice was the first major European actor to challenge the notion that platforms are merely passive and should be exempted from any responsibility for the content they happen to convey. A string of famous cases, whose impact was felt outside Europe and paved the way for radical evolutions

[130] 47 U.S.C. § 230(c)(1).
[131] See infra, 5.1.2.
[132] L. C. Bollinger, *The Tolerant Society. Freedom of Speech and Extremist Speech in American* (New York: Oxford UP, 1988).
[133] T. Flew et al., 'Internet Regulation as Media Policy: Rethinking the Question of Digital Communication Platform Governance', *Journal of Digital Medial & Policy*, Vol. 10 (2019), pp. 33, p. 40.

abroad, expressed this new, constitutional, vision. The litany of cases *Google France*, *L'Oréal*, *Scarlet*, *Netlog*, *Digital Rights Ireland*, *Schrems*, *Google Spain*[134] rejected the premise that digital actors were passive intermediaries. Based on a new – and more sensitive to their actual social relevance – perception of their role, the Court imposed on them new obligations to secure the protection of fundamental rights. Data protection and the right to privacy were at the heart of this evolution. This evolution paved the way for the design of a full-blown supranational strategy, as well as the adoption and publication of several documents of soft law and hard law. The most salient are the GDPR and the more recent Digital Services Act. The GDPR confronts digital governance from two vantage points. From the perspective of the "data subject", it defines a set of enforceable fundamental rights, among which the right to transparent Information and access to personal data, the right of access, the right to rectification, the right to erasure (right to be forgotten),[135] the right to data portability, the right to object to the processing of personal data. From the perspective of the data controller, Article 24 of the GDPR generally defines its responsibility in the following way:

> "1. Taking into account the nature, scope, context and purposes of processing as well as the risks of varying likelihood and severity for the rights and freedoms of natural persons, the controller shall implement appropriate technical and organisational measures to ensure and to be able to demonstrate that processing is performed in accordance with this Regulation. Those measures shall be reviewed and updated where necessary.
> 2. Where proportionate in relation to processing activities, the measures referred to in paragraph 1 shall include the implementation of appropriate data protection policies by the controller.
> 3. Adherence to approved codes of conduct as referred to in Article 40 or approved certification mechanisms as referred to in Article 42 may be used as an element by which to demonstrate compliance with the obligations of the controller."

Specific obligations for example regard the processing of information, its security, and recording. Promoting self-consciousness, a wide obligation of impact assessment is established by article 35 "where a type of processing in particular using new technologies, and taking into account the nature, scope, context and purposes of the processing, is likely to result in a high risk to the rights and freedoms of natural persons."

Updating the Electronic Commerce Directive of 2000, the Digital Services Act, to be followed by a Digital Markets Act,[136] sets to improve EU regulation of illegal content, transparent advertising, and disinformation. Pursuant to Article 1,

> "1. The aim of this Regulation is to contribute to the proper functioning of the internal market for intermediary services by setting out harmonised rules for a safe, predictable and trusted online environment that facilitates innovation and in which fundamental rights enshrined in the Charter, including the principle of consumer protection, are effectively protected.
> 2. This Regulation lays down harmonised rules on the provision of intermediary services in the internal market. In particular, it establishes:
> (a) a framework for the conditional exemption from liability of providers of intermediary services;
> (b) rules on specific due diligence obligations tailored to certain specific categories of providers of intermediary services;

[134] ECJ Google France C-236/08, C-237/08 and C-238/08 ; L'Oréal 324/09; Scarlet C 70/10 ; Netlog C 360/10 ; Digital Rights Ireland C 293/12 and C-594/12 ; Schrems C-362/14 ; C-131/12 Google Spain.
[135] See supra, 2.1.
[136] See A.C. Witt, 'The Digital Markets Act: Regulating the Wild West', *Common Market Law Review*, Vol. 60-3 (2023), pp. 625-666.

> (c) rules on the implementation and enforcement of this Regulation, including as regards the cooperation of and coordination between the competent authorities."

Content moderation should be improved. More transparency on the use of algorithms as well as the conditions for content deletion should be ensured. Easier means to signal illicit content should be provided. The major actors' self-awareness of the systemic risks their activities involve is also a fundamental preoccupation of the new legislation. When compared with the United States', this legislation testifies to an approach which is more sensitive to the impact of the digital sphere on the life of European citizens. As Giovanni De Gregorio, Pietro Dunn, and Oreste Pollicino note,

> "In this sense, the approach taken by the European Union has been constitutional at its core. If constitutional law represents the backbone of a state's legal order, the regulatory efforts of the Commission have the goal of building the inner infrastructure of the digital space, and of setting the rules for the power dynamics therein. To a certain extent, European institutions have come to treat social media and online intermediaries as forms of quasi-public utilities, and this emerges in various DSA provisions trying to set some due process requirements for content moderation."[137]

30. These two general attitudes, the second being shared by the European Court of Human Rights,[138] are only idealtypic extremities of a wide spectrum. Depending on the states, intermediate solutions abound. Moreover, evolutions are possible across the multiplicity of available positions. For example, although its constitutionalism is very close to the United States, whose constitutional document it borrowed in 1853, Argentina seems to be undergoing a change. In 2022, in a case that is still pending before the Supreme Court, the *Procurador fiscal* Victor Abramovich claimed that the private firm Facebook Argentina is bound by the Personal data Act 25.326 that implements Article 43 of the Constitution. Pursuant to this text, "Any person may lodge an expeditious and swift action of "amparo," whenever no other more appropriate judicial means exists, against any act or omission by public authorities or by private individuals, that presently or imminently harms, restricts, alters or threatens, in an arbitrary or manifestly illegal manner, the rights and guarantees recognized by this Constitution, by a treaty, or by a law." The protection of one's data may be a cause for using this remedy.

The Procurador considered that Facebook's activity involved personal data:

> "la red social Facebook permite a los usuarios, de manera automatizada, constante y sistemática, almacenar, conservar y registrar datos y, entre ellos, datos personales propios y de terceros; la red social además organiza esos datos según criterios y finalidades predeterminadas; y finalmente, permite a los usuarios relacionar, acceder y difundir los datos personales de terceros. Ese tratamiento comprende datos personales de habitantes de nuestro país. Por ello, la gestión de la red social conlleva un tratamiento de datos en los términos de la ley 25.326 y su decreto reglamentario.
>
> En el marco de la ley 25.326 y de la protección constitucional de la autodeterminación informativa, que debe ser adaptada a las características del entorno digital, entiendo que, tal como juzgó el tribunal a quo, Facebook Argentina SRL es responsable por ese tratamiento frente a

[137] G. De Gregorio, P. Dunn and O. Pollicino, 'Shareholder Power as a Constitutionalising Force: Elon Musk's Bid to Buy Twitter' (VerfBlog, 4th April 2021), available at : https://verfassungsblog.de/musks-bid-to-buy-twitter/

[138] See e.g. J. Barata Mir and M. Bassini, 'Freedom of Expression in the Internet. Main Trends of the Case Law of the European Court of Human Rights', in *The Internet and Constitutional Law: The Protection of Fundamental Rights and Constitutional Adjudication in Europe*, O. Pollicino and Graziella Romeo (London: Routledge, 2016), pp. 71-93.

> los usuarios y víctimas de daños en virtud de la interdependencia económica de las actividades realizadas por ambas entidades, y en atención a la apariencia creada por el grupo organizado por Facebook Inc.
>
> Con relación a la primera cuestión, cabe puntualizar que Facebook Argentina SRL tiene por objeto "brindar servicios relacionados con soportes de ventas para publicidad, marketing y relaciones públicas" de la red social conocida como Facebook, que es operada en la actualidad por Facebook Inc. —y al momento de la interposición de la acción por Facebook Ireland Ltda.—. De este modo, Facebook Argentina SRL se aprovecha del tratamiento de datos a los efectos de desarrollar su actividad comercial y, además, ese tratamiento de datos se sostiene y alcanza beneficios económicos para el grupo a partir de las actividades de publicidad, marketing y relaciones públicas realizadas por la sede argentina (fs. 32/33 y 36), entre muchas otras que cumplen idéntica función en el resto del mundo."[139]

Outside the United States, the age of worldwide digital libertarianism seems to be over, or at least to be increasingly challenged in the name of constitutional values.

2.10. "Code is (constitutional) law"

31. As it has been exposed by Hans Kelsen, the main specificity of positive law lies in the fact that it establishes what ought to be the case, as distinguished from what is the case.[140] This feature is intrinsic to the very normativity of law. By definition, law can only regulate human behaviours that are neither necessary (e.g. breathing) nor impossible (e.g. flying), but contingent. This implies that, once again by definition, legal normativity goes hand in hand with the possibility of its violation. In order to deal with what ought to be, law has to prescribe, permit, or empower behaviours that may take place and may not take place. For better or worse, there is always room for a form of human choice to follow or not to follow the norm.

The influence of the digital environment on human behaviour is somewhat different. Several authors have identified a specific normativity of the digital space.[141] The architecture of platforms, the digital interface, and the algorithm shape how people behave online. They constrain human action, make some things possible, others impossible. For example, they condition and organise the way users communicate, and the kind of information they can exchange (or not): pictures, videos, music, texts, and so on. These rules define the environment of social intercourse. According to Nicolas P. Suzor, "These rules are not neutral; the software that allows us to communicate encodes rules that affect who can speak, what sort of content can be transmitted, and which communications are most visible to others."[142] The design choices made by the operators directly condition what is possible and govern online behaviour. This is precisely why digital constitutionalism intends to limit its impact. As

[139] Case Quinteros, Héctor Andrés c/ Facebook Argentina S.R.L. s/ Amparo Ley 16.986, available at : https://www.diariojudicial.com/public/documentos/000/102/933/000102933.pdf.

[140] H. Kelsen, *Reine Rechtslehre. Einleitung in die Rechtswissenschaftliche Problematik* (Liepzig, Wien: Franz Deuticke, 1934), 236 p. ; H. Kelsen, *Reine Rechtslehre*, Vol. 2 (Wien: Franz Deuticke, 1983), 404 p. ; H. Kelsen, *Allgemeine Theorie der Normen* (Wien, Manz, 1979) Ch. XVI, I.

[141] J.R. Reidenberg, 'Lex Informatica: The Formulation of Information Policy Rules Through Technology', *Texas Law Review*, Vol. 76 (1997), pp. 553 ; M. Hildebrandt, 'Legal and Technological Normativity: More (and less) that twin sisters', *Techné. Research in Philosophy and Technology*, Vol. 12 (2008), pp. 169-183.

[142] N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019), p. 90.

Laurence Lessig famously wrote, "Code is law"[143]. But, as he also appropriately perceived, it is not exactly like law traditionally understood. This "normativity" is not totally similar to the legal one:

> "Left to itself, cyberspace will become a perfect tool of control. […] This invisible hand, pushed by government and by commerce, is constructing an architecture that will perfect control and make highly efficient regulation possible."[144]
>
> "The regulator is the obscurity in this book's title – Code. In real space, we recognize how laws regulate – through constitutions, statutes, and other legal codes. In cyberspace we must understand how a different 'code' regulates – how the software and hardware (i.e., the 'code' of cyberspace) that make cyberspace what it is also regulate cyberspace as it is. As Willilam Mitchell puts it, this code is cyberspace's'law'. 'Lex informatica,' as Joel Reidenberg first put it, or better, 'code is law.'"[145]

To borrow from John Searle's theory of speech acts, rather than regulative rules, these are constitutive rules.[146] Regulative rules intend to shape and influence behaviours that exist independently of them. For example, the action of brushing one's teeth exists and is conceivable whether or not it is mandatory under a regulative rule. On the contrary, constitutive rules create new forms of action that cannot be conceived of or described independently from the rule. Such is the case of a move in the game of chess. Digital normativity is close to that of constitutive rules. "Technological normativity can make compliance a necessity, either in the form of imposing a response to a circumstance or by constituting at the outset all the courses of action that the end-user can possibly take."[147] Strictly speaking, these rules cannot be obeyed or violated. Either one does what they establish or one does something else. Rather than to the deontic space, they belong to the anankastic space. They are followed not because one *ought to* do what they say, but simply because, if one wants to do something the digital architecture permits, one *has to*. For example, no one forces me to cook a chocolate cake: I *ought not* to cook it. But if I want to cook it, I *have to* follow the recipe. A rule like the latter is called a technical rule. The concept of a technical rule originates from the philosophy of science. Causal relationships exist at the level of natural objects. The natural sciences describe these relationships by means of so-called "anankastic" propositions. These are of the type "if a is, then b is". They establish a necessary conditional relationship between two phenomena. On the basis of these propositions, it is possible to develop practical applications of scientific knowledge. If an individual sets b as his goal, she knows that she must cause a. It is possible to formulate a technical rule of the form "if you want to achieve goal a, you must use means b". The freedom to choose the goal is linked to the necessity to use certain means. A technical rule thus indicates a behaviour to be carried out not in itself, but as a necessary, sufficient, or necessary and sufficient condition for achieving a contingent end. In a technical rule, the concept of condition appears twice. The behaviour to be followed is indicated on the

[143] L. Lessig, *Code. Version 2.0* (New York: Basic Books, 2006) pp. 1-8. See also L. Lessig, 'Constitution and Code', *Cumberland Law Review*, Vol. 27 (1996-1997), p. 1 ; L. Lessig, 'The Constitution of Code: Limitations on Choice-Based Critiques of Cyberspace Regulation', *CommLaw Conspectus* (1997), available at : https://scholarship.law.edu/cgi/viewcontent.cgi?article=1119&context=commlaw
[144] L. Lessig, *Code. Version 2.0* (New York: Basic Books, 2006), p. 4.
[145] *Ibid*., p. 5.
[146] J.R. Searle, *Les actes de langage. Essai de philosophie du langage*, trad. fr. H. Pauchard (Paris : Hermann, coll. Savoir, 1972), 261 p.; J.R. Searle, *La construction de la réalité sociale*, trad. fr. C. Tiercelin (Paris : Gallimard, coll. Nrf essais, 1998), 303 p.
[147] L. Diver, *Digisprudence. Code as Law Rebooted* (Edinburgh: Edinburgh University Press, 2022), p. 13.

subjective condition that the addressee of the rule pursues a certain end and as an objective condition for this end to be achieved[148]. In a similar way, just as it is impossible to avoid the "normativity" of the cooking recipe if one wants to cook, it is impossible to escape from the "normativity" of digital rules, whose determinacy is total. In spite of the fact that "Disobedience and contestability are the hallmarks of law in a constitutional democracy,"[149] they simply offer no space for disobedience, i.e., in a way, for individual autonomy or choice.

32. An important difference is that the digital anankastic normativity is not natural, but engineered by human beings. This is at the heart of Laurence Diver's theory of "Digisprudence," which intends to "Reboot Code as Law". According to this author, the features of this form of normativity, which he calls "computational legalism," are striking:

> "In even the most tyrannical state there is space to interpret, and perhaps to disobey, the law – the hermeneutic gap between the text of a norm on the page and its translation into behaviour in the world makes this at least a notional possibility. In the environments where code is designed, however, the elision of that gap is not only easy to do but is entirely standard, not necessarily through malice or intentional obfuscation […], but simply by virtue of the ontological characteristics of the code, which presents norms to the end-user that 'just are'."[150]

He continues:

> "This represents the apex of legalism: the normative collapses into the descriptive (what was once requested becomes simply what is), and there is no choice but to obey the rule as it is expressed by the designer, much less to view and contest it, since it by definition constitutes empirical as well as legal and technological reality."[151]

The main difference with a "natural" necessity, like the fact that water boils at 100°C, is that in the digital realm, necessity is manmade. It is designed and engineered.[152] This is why, contrary to what could be perceived as the law of nature, they are inescapable not by themselves, but by design. In other words, they embody a strange form of artificially created (i.e. contingent) form of necessity. This is precisely why the way they shape human behaviour results from the exercise of a very specific – and very strong – form of power, which is able to rule not by sanctions or incitation, but through the very structure of social interaction it establishes. As Lessig puts it, "In this context [the Net], the rule applied to an individual does not find its force from the threat of consequences enforced by the law – fines, jail, or even shame. Instead, the rule is applied to an individual through a kind of physics. A locked door is not a command 'do not enter' backed up with the threat of punishment by the state. A locked door is a physical constraint on the liberty of someone to enter some space."[153] The greater the importance of this structure for everyday intercourse, the greater the power of the private actors who create it, and thus design the universe of other human beings.

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[148] G.M. Azzoni, *Cognitivo e normativo: il paradosso delle regole tecniche* (Milano, Franco Angeli, 1991) pp. 13-14. See also, A.G. Conte, 'Eidetic-Constitutive Rules', in *Law and Language. The Italian Analytical School*, A. Pintore and M. Jori (Liverpool: Deborah Charles Publications, 1997), pp. 133-146 ; A.G. Conte, 'Materiali per una tipologia delle regole', *Materiali per una storia della cultura giuridica*, Vol. 15 (1985), pp. 345-368 ; A.G.Conte, 'Phénoménologie du langage déontique', in *Les fondements logiques de la pensée normative. Actes du Colloque de Logique déontique de Rome (les 29 et 30 avril 1983)*, G. Kalinowski and F. Selvaggi (Roma: Editrice pontifica Università Gregoriana, 1985), pp. 179-193.

[149] M. Hildebrandt, *Smart Technologies and the End(s) of Law. Novel Entanglements of Law and Technology* (Cheltenham: Edward Elgar, 2015), p. 10.

[150] L. Diver, *Digisprudence. Code as Law Rebooted* (Edinburgh : Edinburgh University Press, 2022), p. 16.

[151] *Ibid*., p. 17.

[152] *Ibid*., esp. pp. 69-108.

[153] L. Lessig, *Code. Version 2.0* (New York: Basic Books, 2006), pp. 81-82.

Gunther Teubner also remarks that "the 'code's' self-enforcing character […] seems to be the great advantage of the 'code'; however, in a constitutional perspective it becomes the nightmare for fundamental principles of legality."[154] Antoinette Rouvroy makes a similar comment with respect to the development of AI:

> "We do not respect the subject if we do not respect both his capacity for reticence, for reserve, for not carrying out what the algorithms predict about him, and his capacity to state, by himself, what makes him act. It is to a revaluation and protection by the law of these two essential 'facets' of the legal subject that the preceding considerations invite, in filigree. What should therefore be guaranteed, as 'meta-rights', or capacities that are necessarily recognised and protected in a State governed by the rule of law, is 1° the ability to disobey, to not always be where we are expected to be, to not do everything we are capable of according to algorithmic projections; 2° the responsibility to account for our actions, decisions and intentions ourselves, in spite of the algorithmic recommendations and profiling."[155]

This must not be understood simply as a technical feature of the digital sphere. As Suzor points, these technical choices of architecture "are no less political in their effects than the public laws created by the democratic legislatures of nation-states around the world."[156]

33. The foregoing list of examples by no means exhausts the types of events, processes, or phenomena that qualify under the concept(s) of digital constitutionalism as it (they) is (are) used in the current discussion. It nevertheless offers a convenient sample of contexts in which contemporary constitutionalism, as it has been designed in the XVIIth century and has been developing since that time, is invoked, activated and, simultaneously, challenged. These offer a promising starting point to try to elucidate the intellectual and practical dynamics of the current effort to develop digital constitutionalism.

[154] G. Teubner, 'Horizontal Effects of Constitutional Rights in the Internet: A Legal Case on the Digital Constitution', *The Italian Law Journal*, Vol. 3 (2017), pp. 193-205, p. 203.

[155] A. Rouvroy, ' « Des données et des hommes ». Droits et libertés fondamentaux dans un monde de données massives", *T-PD-BUR(2015)09REV* (Council of Europe, 2016), p. 44, available at : https://rm.coe.int/16806b1659. See also A. Rouvroy and T. Berns, 'Gouvernementalité algorithmique et perspectives d'émancipation. Le disparate comme condition d'individuation par la relation', *Réseaux*, no. 177 (2013), pp. 163-196. See more generally V. Forray, S. Pimont, 'Le visage du nouveau monstre. L'hypothèse d'un droit non-normatif', *Mélanges en l'honneur de Catherine Thibierge* (Paris : Mare & Martin, 2023), pp. 167-181.

[156] N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019), p. 91.

3. CONSTITUTIONAL CONUNDRUM

34. In this part, I intend to discipline the chaos that the vignettes of digital constitutionalism have exposed. So many digital constitutionalism(s), indeed contribute to the "nebulosity"[157] of the discussion. More modestly and more fundamentally at the same time, I will also try to elucidate why the various loci of digital constitutional debate can hardly be rationalised. This tentative mapping of the main features that may help to build a taxonomy of digital constitutionalism(s) or, more exactly, of the phenomena that are targeted through this lens, will expose the extent to which digital constitutional is worth considering as a set of intrinsically unstable controversies rather than a fixed landscape. This is especially visible when one confronts two core difficulties of digital constitutionalism, regarding freedom of speech and the banalisation of constitutionalism.

3.1. Vignettes as loci for controversies

35. First, the ten foregoing vignettes offer puzzling situations for a constitutionally-minded reader. Most of them display a tension between good and bad aspects of technology. This ambivalence of the digital universe is widely acknowledged, by optimist positions as well as pessimist ones. It comes with many advantages when compared with other techniques for the promotion of constitutional values like human rights and power limitation. But it also presents incredible drawbacks from the very same viewpoints. Just to mention a few very commonplace examples, digital technologies offer incredible, and until very recently, almost unimaginable, facilities to reach people all over the world instantaneously. They empower free speech. They offer vast possibilities for transcultural exchanges, and as a consequence foster mutual understanding and tolerance. They offer cheap and easy access to information about almost everything in the world, thus abolishing intellectual and practical barriers. They allow to circumvent monopolies over political information, and promote pluralism, thus offering new spaces for a more vivid public sphere. But at the same time, no one can ignore that they also offer new tools for authoritarianism and political violence. Mass surveillance,[158] facial recognition, tracking of one's activities on the Internet, detection of opponents, interception of correspondence, spread of fake news[159] and hate speech, are all made easier by technology.

36. The vignette about the right to be forgotten testifies to this difficulty. The Internet remembers everything. This is a good opportunity to have a permanently accessible source of information on almost any topic. But at the same time, this may imperil one's will not to be held guilty forever for youth mistakes. Public decision by algorithm is fantastic in order to

[157] E. Celeste, 'The Constitutionalisation of the Digital Ecosystem: Lessons From International Law', in *International Law and the Internet,* M. Kettemann, R. Kunz, A.J. Golia (Nomos: Baden-Baden, 2021), o.14, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3872818

[158] See e.g. G.T. Marx, *Windows into the Soul: Surveillance and Society in an Age of High Technology* (Chicago: University of Chicago Press, 2016).

[159] See eg. European Commission, 'The European Union 2022 Code of Practice on Disinformation', Policy and Legislation, (June 2022), available at : https://digital-strategy.ec.europa.eu/en/library/2022-strengthened-code-practice-disinformation.

ensure quick, cheap, and objective decision-making. It allows human public agents to be spared repetitive and uninteresting jobs, while guaranteeing equality of treatment. But at the same time, the very automaticity of the decision-making process deprives it of any capacity of adaptation to specific cases that call for a more sophisticated examination. The issue of neuronal autonomy confronts the possible advantages of artificial intelligence for medicine, for which it allows quicker and more precise diagnostics by being able to compile, confront, and manage an amount of information no human brain can handle, and the risks that follow from the possibility of economic actors to anticipate and manipulate one's needs, so as to induce consuming behaviours. In such cases, technology allows us to circumvent human autonomy, and to treat human beings as a means rather than as an end, contradicting a basic Kantian principle.[160]

All the aforementioned examples lend themselves to similar ambiguities and unstableness. This is why they may be all understood as controversial loci. From the legal viewpoint, this adds to the classical reversibility of legal arguments that has been exposed by critical legal scholars.[161] It is always possible to use any legal notion, among which constitutional principles such as freedom of movement, free speech, equality, rule of law, etc., in order to justify a given conclusion or to debase this very same conclusion. This indeterminacy of legal language is simply reinforced or made more evident by the very texture of the digital sphere when taken as an object of constitutional discourse.

3.2. A multiplicity of taxonomies

37. Apart from this common ambiguity, the vignettes share an equal claim to belong to constitutional discourse and to be susceptible to constitutional analysis. But ordinary constitutional parlance is not devoid of ambiguities. There are many ways to be relevant for a constitutional discussion, and to be the object of the theoretical and practical effort that digital constitutionalism expresses. Each leads to a possible taxonomy, some of which will be presented below.

Constitutional scholars very seldom mention this fact. Most of them rely on the intuitive, spontaneous, and more or less intuitive dimension of terms like "constitutional," "constitutionalism," "constitutionalisation," and fall short of systematically making explicit what they mean. Without offering a complete and definitive presentation of all the possible taxonomies, a few major distinctions can be offered to limit the chaos of the discussion, as well as to highlight the extent to which the current doctrinal debate about digital constitutionalism is fraught with ambiguities. All of them may not be innocent but, as will be suggested below in Part 6, part of an ideological enterprise.

38. A basic distinction relies on two possible understandings of the very expression "digital constitutionalism". They depend on what specialists of the theory of speech acts have

[160] M. Coeckelbergh, *The Political Philosophy of Artificial Intelligence* (Cambridge: Polity, 2022), pp. 18-19.
[161] See esp. D. Kennedy, 'A Semiotics of Legal Argument', *Syracuse Law Review*, Vol. 42 (1991), p. 75 ; D. Kennedy, 'Three Globalizations of Law and Legal Thought: 1850-2000', in *The New Law and Economic Development. A Critical Appraisal*, D. Trubekand and A. Santos (Cambridge, New York, Melbourne: Cambridge University Press, 2006), pp. 19-73.

called the "direction of fit" of an utterance.[162] Some utterances have a word-to-world direction of fit. This is the case for example of a sentence (word) whose aim is to describe a fact (world). The word is intended to adjust to what is the case in the world. On the contrary, some utterances have a world-to-word direction of fit. This is for example the case of a sentence expressing a norm. It is then intended that the world will adjust to what the word requires.

Transposing this dichotomy to the discussion at hand, one can distinguish two ways for digitalism and constitutionalism to adjust to each other. Sometimes, what is at stake is the influence of the digital on constitutionalism. This is for example the case when one wonders about the impact of social networks on constitutional values like equality, non-discrimination, or political participation. Conversely, sometimes, what is at stake is the influence of constitutionalism on the digital environment. This is the case for example when a state insists on its sovereignty in order to limit access to digital services whose functioning it disapproves or has reasons to fear.

39. Going to another possible classification, the status of the constitutional discourse is not systematically the same. Sometimes, digital constitutionalism refers to positive law. Depending on the examples that have been exposed in Part 2, several legal sources can be involved: constitutional norms, legislative norms, administrative acts, judicial rulings, not to say anything about private smart contracts. Each involves so many different actors and procedures.

A sub-distinction can also be made depending on whether what is involved is the subject-matter of the norms or the tools with which the norms are produced. In the first case, legal norms for example tend to regulate the activities of platforms, impose on the platforms to establish notice-and take down procedures, define taxation procedures, etc. In this case, the digital dimension is occasional and not intrinsic to the matter at hand. In the second, the digital is more appropriately regarded as the very texture of the norm, as is the case when the expression "code is law" is employed. In this last case, the digital dimension is a defining feature of the matter.

As opposed to these examples, which involve the object-language, others involve scholarly metalanguage. In this case, as it is mostly understood by Giovanni De Gregorio and Oreste Pollicino, digital constitutionalism is first and foremost an intellectual perspective that helps shed light on the evolution and philosophy of legal regulations.

40. In terms of their content, some issues more spontaneously address the fundamental rights dimension of constitutionalism, and target what is known as the "dogmatic part" of constitutionalism, whereas others are closer to issues of separation of powers or of limitation of powers, and target what is known as the "organic part" of

[162] J.R. Searle, *Intentionality: An Essay in the Philosophy of Mind* (Cambridge: Cambridge University Press, 1983) ; J.R. Searle and D. Vanderveken, *Foundations of Illocutionary Logic* (Cambridge, Cambridge University Press, 1985) ; D. Vanderveken, *Meaning and Speech Acts, Vol. 1, Principles of Language Use* (Cambridge: Cambridge University Press, 1990), 244 p. ; D. Vanderveken, *Meaning and Speech Acts, Vol. 2 Formal Semantics of Success and Satisfaction* (Cambridge: Cambridge University Press, 1991), 196 p. ; K. Mikhail, 'Direction of fit', *Logique et analyse*, Vol. 50, no. 198 (2007), pp. 113-128.

constitutionalism. Issues of free speech, non-discrimination, or human dignity belong to the first category. An additional distinction allows opposition to issues involving new applications of traditional fundamental rights, with issues involving the identification of new fundamental rights, like the right to neuronal autonomy.[163] Issues of algorithmic decision-making, delegation of public regulatory functions to private actors by the state, and self-constitutionalisation of private legal or technical environments belong to the second category, and relate to the organic part of constitutionalism.

41. It is evident from the above that, more than a perfectly organised, self-conscious, self-contained and unambiguous universe, digital constitutionalism is an archipelago of debates, intuitions, controversies, and attempts – not to say misnomers for those who would be inclined to consider that using the grammar of constitutionalism in such ways is nothing else than a pathological and illegitimate distortion of traditional legal and political vocabulary. This is why it is worth understanding digital constitutionalism as a project, an effort to address deep puzzlements that result from the current use and importance of technology in our lives. This may be approached as a defect of the discussion. But it exists nevertheless and has to be taken into account as such. Moreover, it is possible that the multiple ambiguities of digital constitutionalism have to do with intrinsic features of the way the discussion is framed. Indeed, among the many uncertainties of the discussion, two core difficulties appear.

3.3. Two core difficulties

42. The internal dynamics of digital constitutionalism testifies to ambiguities, if not contradictions, not only between constitutional values, but more deeply, so to say, *within* constitutional values and principles.

3.3.1. The free speech puzzle

43. The deepest puzzle comes from free speech. Everyone is aware of the extent to which free speech is favoured by the new technologies (abolition of distance and of time, access to an incredible amount of information, easiness to spread whatever one has in mind, avoidance of traditional gatekeepers, etc.), as well as threatened by them (fake news, circulation of pedopornographic content, circulation of terrorist discourse, revenge porn, etc.). These have simply acted as a catalyst for rather classical problems regarding the extent and limits of free speech, and especially whether free speech implies freedom to say whatever one wants, even though this affects other salient constitutional values (privacy, equality, non-discrimination, etc.). These classical dilemmas regarding the balancing of

[163] See also infra, 4.2.2.

fundamental rights have led several states or supranational legal orders to adopt different positions.[164]

For example, with respect to hate speech or revisionist discourse, the United States and Germany have adopted opposite attitudes. For the former, the First Amendment to the federal Constitution is understood in rather absolutist terms. According to this text, "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances." Except in exceptional cases, any form of discourse, however offensive, is protected. The rationale behind this attitude is that in a free market of ideas, truth and good opinions will prevail. Fighting against socially detrimental discourse is more efficiently done through more speech than through less, i.e. through a system that would prevent from the outset the expression of some contents. On the contrary, Germany offers an example of militant democracy.[165] Article 18 of the Basic Law makes it perfectly clear that fundamental rights are not illimited: "Whoever abuses the freedom of expression, in particular the freedom of the press (paragraph (1) of Article 5), the freedom of teaching (paragraph (3) of Article 5), the freedom of assembly (Article 8), the freedom of association (Article 9), the privacy of correspondence, posts and telecommunications (Article 10), the rights of property (Article 14) or the right of asylum (Article 16a) in order to combat the free democratic basic order shall forfeit these basic rights. This forfeiture and its extent shall be declared by the Federal Constitutional Court."[166] Rather than leaving it unregulated, the German authorities have preferred to allow the possibility to limit free speech.

44. From this perspective, the digital sphere only offers a new environment for the application of usual constitutional preoccupations. But this is only part of the story, as free speech is at the roots of an interplay of attitudes that get to the core of digital constitutionalism's puzzles. In a schematic way, the process consists of the following steps:

(1) In the name of freedom of speech (as well as other fundamental values like freedom of enterprise as well as business secrecy), public authorities have been barred from interfering with platforms' action. Because the latter is understood as a form of speech or as having to do with the exercise of free speech, any interference, for example in the form of obligations imposed on the platform or its users, would have qualified as a form of

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[164] T. Hochmann, *Le négationnisme face aux limites de la liberté d'expression : étude de droit comparé*, préf. Otto Pfersmann (Paris: A. Pedone, 2013) ; L. Alexander, *Freedom of Speech*, Vol. 2, (Brookfield, Ashgate, Dartmouth, 2000), 468 p., 622 p. ; N.S. Lind and E.T. Rankin, *First Amendment rights : an encyclopedia. Volume one, Traditional issues on the First Amendment* (Santa Barbara, California : ABC-CLIO, 2013), 313 p.; N.S. Lind and E.T. Rankin, *First Amendment rights: an encyclopedia. Volume two, Contemporary challenges to the First Amendment* (Santa Barbara, California: ABC-CLIO, 2013), 469 p. ; W.W. Van Alstyne, *First Amendment: cases and materials*, 2nd edition, (Westbury, N.Y. : The Foundation Press, 1995), 1187 p.

[165] K. Loewenstein, 'Militant Democracy and Fundamental Rights, I', *The American Political Science Review*, Vol. 31 (1937) pp. 417-432 ; K. Loewenstein 'Militant Democracy and Fundamental Rights, II' *The American Political Science Review*, Vol. 31 (1937), pp. 638-658 ; J. Lameyer, *Streitbare Demokratie. Eine verfassungshermeneutische Untersuchung,* Schriften zum öffentlichen Recht, Bd. 336 (Berlin: Duncker & Humblot, 1978), 226 p.; E. Jesse, *Streitbare Demokratie. Theorie, Praxis und Herausforderungen in der Bundesrepublik Deutschland* (Berlin: Colloquium Verlag, 1980), 115 p. ; A. Sajò, *Militant Democracy* (Utrecht: Eleven International Publishing, 2004), 262 p. ; M. Thiel, *Wehrhafte Demokratie. Beiträge übert die Regelungen zum Schutze der freiheitlichen demokratischen Grundordnung* (Tübingen: J.C.B. Mohr (Paul Siebeck), 2003), 475 p.

[166] See G. Tusseau, *Contentieux constitutionnel comparé. Une introduction critique au droit processuel constitutionnel* (Paris La Défense: Lextenso, 2021),pp. 873-875.

censorship. For example, adopting an attitude not unsimilar to that of the German Gesetz zur Verbesserung der Rechtsdurchsetzung in sozialen Netzwerken in 2017, the French Parliament decided to adopt the "loi visant à lutter contre les contenus haineux sur internet (loi Avia)." But the Constitutional Council struck it down. In ruling 2020-801 DC, it decided:

> "**2.** Le paragraphe I de l'article 1er de la loi déférée modifie l'article 6-1 de la loi du 21 juin 2004 mentionnée ci-dessus prévoyant que l'autorité administrative peut demander aux hébergeurs ou aux éditeurs d'un service de communication en ligne de retirer certains contenus à caractère terroriste ou pédopornographique et, en l'absence de retrait dans un délai de vingt-quatre heures, lui permet de notifier la liste des adresses des contenus incriminés aux fournisseurs d'accès à internet qui doivent alors sans délai en empêcher l'accès. Le paragraphe I de l'article 1er réduit à une heure le délai dont disposent les éditeurs et hébergeurs pour retirer les contenus notifiés par l'autorité administrative et prévoit, en cas de manquement à cette obligation, l'application d'une peine d'un an d'emprisonnement et de 250 000 euros d'amende. […]
>
> **4.** Aux termes de l'article 11 de la Déclaration des droits de l'homme et du citoyen de 1789 : « La libre communication des pensées et des opinions est un des droits les plus précieux de l'homme : tout citoyen peut donc parler, écrire, imprimer librement, sauf à répondre de l'abus de cette liberté dans les cas déterminés par la loi ». En l'état actuel des moyens de communication et eu égard au développement généralisé des services de communication au public en ligne ainsi qu'à l'importance prise par ces services pour la participation à la vie démocratique et l'expression des idées et des opinions, ce droit implique la liberté d'accéder à ces services et de s'y exprimer.
>
> **5.** L'article 34 de la Constitution dispose : « La loi fixe les règles concernant ... les droits civiques et les garanties fondamentales accordées aux citoyens pour l'exercice des libertés publiques ». Sur ce fondement, il est loisible au législateur d'édicter des règles concernant l'exercice du droit de libre communication et de la liberté de parler, d'écrire et d'imprimer. Il lui est aussi loisible, à ce titre, d'instituer des dispositions destinées à faire cesser des abus de l'exercice de la liberté d'expression et de communication qui portent atteinte à l'ordre public et aux droits des tiers. Cependant, la liberté d'expression et de communication est d'autant plus précieuse que son exercice est une condition de la démocratie et l'une des garanties du respect des autres droits et libertés. Il s'ensuit que les atteintes portées à l'exercice de cette liberté doivent être nécessaires, adaptées et proportionnées à l'objectif poursuivi.
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> **6.** La diffusion d'images pornographiques représentant des mineurs, d'une part, et la provocation à des actes de terrorisme ou l'apologie de tels actes, d'autre part, constituent des abus de la liberté d'expression et de communication qui portent gravement atteinte à l'ordre public et aux droits des tiers. En imposant aux éditeurs et hébergeurs de retirer, à la demande de l'administration, les contenus que cette dernière estime contraires aux articles 227-23 et 421-2-5 du code pénal, le législateur a entendu faire cesser de tels abus.
>
> **7.** Toutefois, d'une part, la détermination du caractère illicite des contenus en cause ne repose pas sur leur caractère manifeste. Elle est soumise à la seule appréciation de l'administration. D'autre part, l'engagement d'un recours contre la demande de retrait n'est pas suspensif et le délai d'une heure laissé à l'éditeur ou l'hébergeur pour retirer ou rendre inaccessible le contenu visé ne lui permet pas d'obtenir une décision du juge avant d'être contraint de le retirer. Enfin, l'hébergeur ou l'éditeur qui ne défère pas à cette demande dans ce délai peut être condamné à une peine d'emprisonnement d'un an et à 250 000 euros d'amende.
>
> **8.** Dès lors, le législateur a porté à la liberté d'expression et de communication une atteinte qui n'est pas adaptée, nécessaire et proportionnée au but poursuivi."

It also struck down another provision of the same bill:

> "**10.** Le paragraphe II de l'article 1er crée un article 6-2 dans la loi du 21 juin 2004 imposant à certains opérateurs de plateforme en ligne, sous peine de sanction pénale, de retirer ou de rendre inaccessibles dans un délai de vingt-quatre heures des contenus illicites en raison de leur caractère haineux ou sexuel. […]

12. En application des dispositions contestées, certains opérateurs de plateforme en ligne dont l'activité dépasse des seuils définis par décret doivent, sous peine de sanction pénale, retirer ou rendre inaccessible tout contenu qui leur est signalé dès lors que ce contenu peut manifestement relever de certaines qualifications pénales énumérées par ces dispositions. Il s'agit des infractions d'apologie à la commission de certains crimes ; de provocation à la discrimination, à la haine ou à la violence à l'égard d'une personne ou d'un groupe de personnes à raison de leur origine ou de leur appartenance ou de leur non-appartenance à une ethnie, une nation, une race ou une religion déterminée ou à raison de leur sexe, de leur orientation sexuelle ou identité de genre ou de leur handicap ou de provocation à la discrimination à l'égard de ces dernières personnes ; de contestation d'un crime contre l'humanité tels qu'ils sont définis par l'article 6 du statut du tribunal militaire international annexé à l'accord de Londres du 8 août 1945 et qui ont été commis soit par les membres d'une organisation déclarée criminelle en application de l'article 9 dudit statut, soit par une personne reconnue coupable de tels crimes par une juridiction française ou internationale ; de négation, de minoration ou de banalisation de façon outrancière de l'existence d'un crime de génocide, d'un autre crime contre l'humanité que ceux précités, d'un crime de réduction en esclavage ou d'exploitation d'une personne réduite en esclavage ou d'un crime de guerre lorsque ce crime a donné lieu à une condamnation prononcée par une juridiction française ou internationale ; d'injure commise envers une personne ou un groupe de personnes à raison de leur origine ou de leur appartenance ou de leur non-appartenance à une ethnie, une nation, une race ou une religion déterminée ou envers une personne ou un groupe de personnes à raison de leur sexe, de leur orientation sexuelle ou identité de genre ou de leur handicap ; de harcèlement sexuel ; de transmission d'une image ou d'une représentation d'un mineur lorsque cette image ou cette représentation présente un caractère pornographique ; de provocation directe à des actes de terrorisme ou d'apologie de ces actes ; de diffusion d'un message à caractère pornographique susceptible d'être vu ou perçu par un mineur.

13. En adoptant ces dispositions, le législateur a voulu prévenir la commission d'actes troublant gravement l'ordre public et éviter la diffusion de propos faisant l'éloge de tels actes. Il a ainsi entendu faire cesser des abus de l'exercice de la liberté d'expression qui portent atteinte à l'ordre public et aux droits des tiers.

14. Toutefois, en premier lieu, l'obligation de retrait s'impose à l'opérateur dès lors qu'une personne lui a signalé un contenu illicite en précisant son identité, la localisation de ce contenu et les motifs légaux pour lesquels il est manifestement illicite. Elle n'est pas subordonnée à l'intervention préalable d'un juge ni soumise à aucune autre condition. Il appartient donc à l'opérateur d'examiner tous les contenus qui lui sont signalés, aussi nombreux soient-ils, afin de ne pas risquer d'être sanctionné pénalement.

15. En deuxième lieu, s'il appartient aux opérateurs de plateforme en ligne de ne retirer que les contenus manifestement illicites, le législateur a retenu de multiples qualifications pénales justifiant le retrait de ces contenus. En outre, son examen ne doit pas se limiter au motif indiqué dans le signalement. Il revient en conséquence à l'opérateur d'examiner les contenus signalés au regard de l'ensemble de ces infractions, alors même que les éléments constitutifs de certaines d'entre elles peuvent présenter une technicité juridique ou, s'agissant notamment de délits de presse, appeler une appréciation au regard du contexte d'énonciation ou de diffusion des contenus en cause.

16. En troisième lieu, le législateur a contraint les opérateurs de plateforme en ligne à remplir leur obligation de retrait dans un délai de vingt-quatre heures. Or, compte tenu des difficultés précitées d'appréciation du caractère manifeste de l'illicéité des contenus signalés et du risque de signalements nombreux, le cas échéant infondés, un tel délai est particulièrement bref.

17. En quatrième lieu, s'il résulte des travaux parlementaires que le législateur a entendu prévoir au dernier alinéa du paragraphe I du nouvel article 6-2 une cause exonératoire de responsabilité pour les opérateurs de plateforme en ligne, celle-ci, selon laquelle « Le caractère intentionnel de l'infraction … peut résulter de l'absence d'examen proportionné et nécessaire du contenu

> notifié » n'est pas rédigée en des termes permettant d'en déterminer la portée. Aucune autre cause d'exonération de responsabilité spécifique n'est prévue, tenant par exemple à une multiplicité de signalements dans un même temps.
> **18.** En dernier lieu, le fait de ne pas respecter l'obligation de retirer ou de rendre inaccessibles des contenus manifestement illicites est puni de 250 000 euros d'amende. En outre, la sanction pénale est encourue pour chaque défaut de retrait et non en considération de leur répétition.
> **19.** Il résulte de ce qui précède que, compte tenu des difficultés d'appréciation du caractère manifestement illicite des contenus signalés dans le délai imparti, de la peine encourue dès le premier manquement et de l'absence de cause spécifique d'exonération de responsabilité, les dispositions contestées ne peuvent qu'inciter les opérateurs de plateforme en ligne à retirer les contenus qui leur sont signalés, qu'ils soient ou non manifestement illicites. Elles portent donc une atteinte à l'exercice de la liberté d'expression et de communication qui n'est pas nécessaire, adaptée et proportionnée. Dès lors, sans qu'il soit besoin d'examiner les autres griefs, le paragraphe II de l'article 1er est contraire à la Constitution."

The Constitutional Council is not a maximalist in terms of free speech, as it admits for example the criminalisation of negationist discourse.[167] It nevertheless rejected the possibility for interference with online free speech that has been designed by the legislator.[168] This attitude testifies to the obstacles that exist, because of the constitutional right to freedom of expression, for state regulation of platforms.

45. (2) Because of the state's constitutional exclusion from this social sphere, the platforms represent a fascinating universe for freedom of expression. Another consequence that follows is that it consequently belongs to the platforms, i.e. to private firms, to regulate for themselves the quantity and quality of discourse they convey. This basically takes the form of the "enactment" of terms of service that express the platform's position in this respect, as well as the implementation of these norms, by the platform itself, through a practice of content moderation.[169] But as already noticed,[170] beyond this regulatory dimension, one also has to be conscious of the fact that "code is law." The very architecture of the platform conditions in a radical and compelling manner the ways exchanges take place (or not).

Several difficulties follow. First, according to many authors, this amounts to a delegation of a public power to private entities. This can be considered problematic as a matter of principle.

Secondly, whereas the state's explicit aim is to promote the public good, even when its action tends to limit some constitutional values in the name of others, this is not the case of private firms. Very legitimately, their ambition is to make profit. This is why one can expect them to regulate the use of speech less in the spirit of public social values than in order to maximise the kinds of exchanges that tend to increase their benefits. This is no guarantee of an incentive to limit hate speech, fake news, etc. Moreover, as was evident when Elon Musk bought Twitter in 2022, the owners of these firms necessarily have personal preferences. Their regulation of the activities that take place on *their* platforms does not have to be

[167] Décision n° 2015-512 QPC du 8 janvier 2016, M. Vincent R. [Délit de contestation de l'existence de certains crimes contre l'humanité].
[168] See generally on the Constitutional Council's attitude: T. Shulga-Morskaya, 'Le numérique saisi par le juge, l'exemple du Conseil constitutionnel', *Les nouveaux Cahiers du Conseil constitutionnel*, n° 57 (2017), pp. 93-105.
[169] G. de Gregorio, 'Democratising Online Content Moderation: A Constitutional Framework', *Computer Law and Security Review* (2019), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3469443 ; see also infra, 5.1.2.
[170] See supra, 2.10 and 3.2.

inspired by impartiality. Because this is their private property – and although this legal qualification may be debated by those who consider that platforms today represent public facilities – there is no objection in principle to their being managed in a way that is subservient to their owner's personal political, ethical, religious, etc. preferences.

Thirdly, the private procedures to regulate free speech are frequently lacking transparency. They are opaque and applied in unaccountable ways. Most of the time, algorithms do most of the job. Their parameters are not necessarily made public, and subject to public scrutiny. They frequently operate as black boxes. Their daily operations are hardly understandable to the most competent specialists, not to say anything about the vast majority of users. As it cannot be understood, their functioning cannot precisely be criticised or discussed. Moreover, it is not exceptional for these automated decisions to be biased.[171] It is not always easy to challenge a platform's decision of moderation that deletes a post, takes down a video, limits access to an account, closes an account, or more generally "deplatforms."[172] This calls into question the very notion of due process. Even though one should not be naïve, and take the logic of public law at face value, things are different from the opposite perspective. Using constitutional logic, the state's power is limited. Its exercise is public. It can be challenged, for example in courts, or by new elections. This is not the case when the regulation of free speech is entrusted to private firms. As well as the substance or orientation of speech regulation, their means or their procedure conflict with the idea of limited government, and can imperil fundamental rights.

Fourthly, the environment for free speech may turn out to be less pluralist. As Frederick Mostert notices, the power of platforms corresponds to the "private ownership of the public forum in today's world."[173] Most of our communications depend on very few infrastructures that as a consequence enjoy a powerful oligopolistic position. This dependence on private actors is far more evident and intense than any state's censorship has ever been. "While for public actors the decision to intervene to filter falsehood online requires questioning whether and to what extent it is acceptable for liberal democracies to enforce limitations to freedom of expression to falsehood, artificial intelligences catalogue vast amounts of content, deciding whether they deserve to be online according to the policies implemented by unaccountable private actors."[174]

46. The conclusion that follows is that because constitutionalism imposed to protect freedom of speech from the state, it eventually abandoned it in the hands of private firms whose concern for constitutional values is not part of their very logic. Paradoxically, the protection of free speech in a vertical perspective led to its exposure to a horizontal threat. According to Giovanni De Gregorio,

> "In this scenario, constitutional states are faced with a paradoxical situation. On the one hand, in order not to hinder the aforementioned liberties, public actors are encouraged to recognise a high

[171] See infra, 5.1.1.1.
[172] See G. Sitaraman, 'Deplatforming', *Yale Law Journal* (2023), available at : http://dx.doi.org/10.2139/ssrn.4375304
[173] F. Mostert, 'Free Speech and Internet Regulation', *Journal of Intellectual Property Law*, (June 2019) available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3537049.
[174] O. Pollicino and G. de Gregorio, 'Constitutional Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, G. de Gregorio, (Cambridge: Cambridge UP, 2021), pp. 3-24, p. 8.

> degree of economic freedom allowing private actors to exercise their autonomy. However, as already explained, this approach has led online platforms to enjoy broad margins of autonomy through instruments based on technology and private law. Unlike public actors, platforms are neither obliged to pursue public interest, nor to protect fundamental rights. On the other hand, even if constitutional states intend to establish a system of pervasive public control over online content, the overregulation of private activities could increase the risk of public and private censorship."[175]

The individuals and the groups were all the more shielded from the state's authority as they were implicitly but necessarily abandoned to another kind of authority whose strength is by no means inferior, and whose functioning is far less transparent and accountable. A systemic, perverse consequence resulted from the application of one of the most cherished constitutional principles. Under these circumstances, constitutionalism appears to be self-defeating. Because of what could be regarded as a somewhat outdated perception of its configuration, the protection of freedom of speech has thus been entrusted to those who have the most powerful tools to limit it, and those whose use of these tools is less understandable and less challengeable than it was when the state was the threat. As Jack M. Balkin has for example underlined, the notion of free speech whose aim was to prevent the state from limiting its citizens' liberty is now mobilised by powerful private actors in order to promote and preserve their own power.[176] Precisely because it limits power on the one hand, it constitutes and reinforces it on the other, without the possible threat decreasing. This paradox is one of the starting points for attempts to develop digital constitutionalism, understood as a means to channel this power and ensure that, in light of the public function it has, it is sensitive to constitutional values. The way so fundamental a right as freedom of speech was able to be turned upside down more generally invites to be cautious as to what may expect from digital constitutionalism.

3.3.2. The banalisation of constitutional law puzzle

47. The digital constitutional discourse attracts a second main source of puzzlement. Simply put: when everyone is supreme, no one is supreme.

The conquering dimension of the constitutionalist paradigm may, in a curious twist, give rise to its own levelling. Indeed, it is no longer exceptional to consider a multiplicity of non-state contexts through the ideas of constitutions, constitutionalism, constitutionalisation or constitutional law. The very grammar of contemporary constitutionalism is thus undergoing a wide translation towards other legal, political and social spheres, at the supranational, transnational, and subnational levels.[177]

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[175] G. de Gregorio,' From Constitutional Freedoms to the Power of Platforms: Protecting Fundamental Rights Online in the Algorithmic Society', *European Journal of Legal Studies* (2018), § 5, available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3365106. See also G. de Gregorio, *Digital Constitutionalism in Europe. Reframing Rights and Powers in the Algorithmic Society* (Cambridge: Cambridge UP, 2022), 366 p., p. 92.

[176] J.M. Balkin, 'Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation', *UCDL Review* (2018), pp. 1149-1210, p. 1153. See also J.M. Balkin, 'Information Fiduciaries and the First Amendment', *UCDL Review* (2015), p. 1183 ; J.M. Balkin, 'The Fiduciary Model of Privacy', *Harvard LR* (2020), p. 11 ; K. Klonick, 'The New Governors: The People, Rules, and Processes Governing Online Speech', *Harvard LR* (2018) ; N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019).

[177] See supra, 1.

By exhibiting constitutional properties, these norms all claim to be "the supreme law of the land." One of their most important claims is a formal and substantial primacy in their own legal sphere. They assert their independence and autonomy from other legal spheres in order to protect their fundamental values. This is why these constitutional orders are not in a hierarchical relationship with each other, but in a "heterarchical" relationship.

While not without its limitations, this analysis points to a shift in constitutional supremacy. Whereas traditionally the constitution was understood as the supreme law of the land, it is finally no longer so, as competing social spheres claim a similar self-description and make sure to situate themselves in a heterarchical relationship to each other. The legitimising force of the discourse of constitutional law is precisely its weakness, in that it is the spread of this regime of enunciation of the organisation of society, because it is particularly prized, that leads to a levelling out of its claim to hegemony, and to a form of demonetisation of constitutionalisation, in all its dimensions: the consolidation of a social structure, the limitation of powers, the protection of fundamental rights.

These two core difficulties testify to the intrinsic fragility of the digital constitutional effort to face the needs of the day. As the following two parts will explain in a more precise way, the grammar of constitutionalism can be mobilised from various sites and to more or less radical and antagonist purposes.

4. PROTECTING FUNDAMENTAL RIGHTS

48. The protection of fundamental rights has superseded the organisation of public authorities as the main topic of constitutional law, which was the major focus of the mechanist understanding of a constitution, still dominant in Montesquieu's writings.[178] Fundamental rights are at the core of the "garantist" conception of constitutional law that has emerged after the American Revolution and has now conquered the world. This is why it is the dominant preoccupation of digital constitutional talk. Yet the approach is not monolithic. Two main perspectives can be identified depending on how innovative and disruptive they propose to be.

4.1. Thin digital constitutionalism: classical fundamental rights confronting the digital age

49. Thin digital constitutionalism is the most conservative viewpoint. This epithet implies no value judgement. It simply makes explicit the fact that some legal scholars as well as legal actors have not felt the need for a major reinvention of the constitutional paradigm in the digital era. This moderate position, which also expresses a form of fidelity to the heritage of modern constitutionalism, relies on the flexibility and adaptability of fundamental rights as they were conceived more than two centuries ago. Two main strategies have been adopted.

4.1.1. New applications of classical fundamental rights

50. The first strategy simply consists in continuing constitutional business as usual. According to this position, there is no felt need for major innovations. It is unproblematic and, maybe, safer, to use classical fundamental rights, whose contribution to the advancement of human welfare since the end of the XVIIIth century is undebated, to confront today's social issues. The application of the traditional grammar of constitutionalism to the new environment does not seem to be problematic.

For example, sovereignty has undoubtedly changed. Whereas in the Westphalian logic, it was related to the notion of land and to the state, it appears now to be more "functional," as well as less stato-centric. But in spite of these differences, the same term is still in use as, like in Bodin's theory,[179] what fundamentally remains at stake is who enjoys supremacy.

In a similar perspective, after all, free speech in the analog age or in the digital age is not so different. In spite of evident adjustments, it remains speech. What changes is only the means of communication, the vehicle, which is understood as neutral towards the conveyed contents. What would have been expressed in paper letters, with a feather and ink, and transmitted with pigeons, is now transferred more quickly through emails and applications.

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[178] C.L. Montesquieu, *The Spirit of Laws* (1748). See also M. Troper, 'La máquina y la norma. Dos modelos de Constitución', *Doxa: Cuadernos de filosofía del derecho*, n° 22 (1999), pp. 331-347 ; A. Papatolias, *Conception mécaniste et conception normative de la constitution* (Athènes, Bruxelles : Bruylant, 2000), 528 p.

[179] J. Bodin, *Les six livres de la République* (Farmington Hills, Michigan : Thomson Gale, 2005).

51. Two main versions of this argument can be identified. Under the weaker version of it, it goes without saying that, of course, the application of pre-existing fundamental rights to the new digital environment, whose emergence has been as gradual as the concern it raised, has been the default position. It has not been possible for written constitutional norms as they existed to be changed automatically and quickly to adapt to the moving social context. A Constitution is generally praised for its endurance,[180] which its "rigidity" is supposed to guarantee.[181] This means that it has behoved to the authorities that interpret and apply the constitution to update its meaning to the digital environment.

For example, in the landmark case *Packingham v. North Carolina*,[182] the Supreme Court of the United States had to decide about the constitutionality of a North Carolina statute that made it a felony for a registered sex offender to access a commercial social networking website where the sex offender knows that the site permits minor children to become members or to create or maintain personal web pages. Delivering the opinion of the Court, Justice Kennedy held:

> "A fundamental principle of the First Amendment is that all persons have access to places where they can speak and listen, and then, after reflection, speak and listen once more. The Court has sought to protect the right to speak in this spatial context. A basic rule, for example, is that a street or a park is a quintessential forum for the exercise of First Amendment rights. […] today the answer is clear. It is cyberspace […], and social media in particular."

He then analysed the contemporary relevance of Facebook, LinkedIn, and Twitter, and unproblematically discussed the matter by referring to First Amendment precedents. In light of the Court's case law, he concluded that

> "By prohibiting sex offenders from using those websites, North Carolina with one broad stroke bars access to what for many are the principal sources for knowing current events, checking ads for employment, speaking and listening in the modern public square, and otherwise exploring the vast realms of human thought and knowledge. These websites can provide perhaps the most powerful mechanisms available to a private citizen to make his or her voice heard. They allow a person with an Internet connection to "become a town crier with a voice that resonates farther than it could from any soapbox." Reno, 521 U. S., at 870. In sum, to foreclose access to social media altogether is to prevent the user from engaging in the legitimate exercise of First Amendment rights. It is unsettling to suggest that only a limited set of websites can be used even by persons who have completed their sentences. Even convicted criminals—and in some instances especially convicted criminals—might receive legitimate benefits from these means for access to the world of ideas, in particular if they seek to reform and to pursue lawful and rewarding lives. […] It is well established that, as a general rule, the Government "may not suppress lawful speech as the means to suppress unlawful speech." Ashcroft v. Free Speech Coalition, 535 U. S., at 255. That is what North Carolina has done here. Its law must be held invalid."

Similarly, in its ruling on the Loi Avia,[183] the French Constitutional Council had apparently not the slightest difficulty in applying a text that was drafted in 1789 to the most contemporary difficulties that result from the use of digital technologies. More recently, the Council had no difficulty in applying the Declaration of the Rights of Man and the citizen:

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[180] Z. Elkins, T. Ginsburg and J. Melton, *The Endurance of National Constitutions*, (Cambridge, New York: Cambridge University Press, 2009), 260 p.
[181] G. Tusseau, 'Deux dogmes du constitutionnalisme', in *Penser le droit à partir de l'individu. Mélanges en hommage à Elisabeth Zoller* (Paris, Dalloz, 2018) 889 p., pp. 835-883.
[182] 582 U.S. 98 (2017). See also Ashcroft v. Free Speech Coalition 535 U.S. 234 (2002).
[183] CC 2020-801 DC, § 4. See supra, 3.3.1. See also, more recently, 2022-841 DC, § 8; 2022-1016 QPC ,§ 4.

> "6. La liberté proclamée par l'article 2 de la Déclaration des droits de l'homme et du citoyen de 1789 implique le droit au respect de la vie privée.
> 7. En vertu de l'article 34 de la Constitution, il appartient au législateur de fixer les règles concernant les garanties fondamentales accordées aux citoyens pour l'exercice des libertés publiques. Il lui incombe d'assurer la conciliation entre, d'une part, les objectifs de valeur constitutionnelle de sauvegarde de l'ordre public et de recherche des auteurs d'infractions et, d'autre part, le droit au respect de la vie privée.
> 8. L'article L. 34-1 du code des postes et des communications électroniques est relatif au traitement des données à caractère personnel dans le cadre de la fourniture au public de services de communications électroniques. Son paragraphe II prévoit que les opérateurs de communications électroniques effacent ou rendent anonymes les données relatives au trafic enregistrées à l'occasion des communications électroniques dont ils assurent la transmission.
> 9. Par dérogation, les dispositions contestées du paragraphe III prévoient que ces opérateurs peuvent être tenus de conserver pendant un an certaines catégories de données de connexion, dont les données de trafic, pour les besoins de la recherche, de la constatation et de la poursuite des infractions pénales, en vue de la mise à disposition de telles données à l'autorité judiciaire.
> 10. En adoptant les dispositions contestées, le législateur a poursuivi les objectifs de valeur constitutionnelle de prévention des atteintes à l'ordre public et de recherche des auteurs d'infractions.
> 11. Toutefois, en premier lieu, les données de connexion conservées en application des dispositions contestées portent non seulement sur l'identification des utilisateurs des services de communications électroniques, mais aussi sur la localisation de leurs équipements terminaux de communication, les caractéristiques techniques, la date, l'horaire et la durée des communications ainsi que les données d'identification de leurs destinataires. Compte tenu de leur nature, de leur diversité et des traitements dont elles peuvent faire l'objet, ces données fournissent sur ces utilisateurs ainsi que, le cas échéant, sur des tiers, des informations nombreuses et précises, particulièrement attentatoires à leur vie privée.
> 12. En second lieu, d'une part, une telle conservation s'applique de façon générale à tous les utilisateurs des services de communications électroniques. D'autre part, l'obligation de conservation porte indifféremment sur toutes les données de connexion relatives à ces personnes, quelle qu'en soit la sensibilité et sans considération de la nature et de la gravité des infractions susceptibles d'être recherchées.
> 13. Il résulte de ce qui précède qu'en autorisant la conservation générale et indifférenciée des données de connexion, les dispositions contestées portent une atteinte disproportionnée au droit au respect de la vie privée.
> 14. Par conséquent, elles doivent être déclarées contraires à la Constitution."[184]

52. These courts' attitude somehow testify to the "living tree" conception of constitutional interpretation, as it was especially developed in Canadian constitutional law. In the case *Henrietta Muir Edwards and others v. The Attorney General of Canada*,[185] the Judicial Comity of the Privy Council decided that "The [BNA] Act [i.e. what is known today as the Canadian Constitution Act 1867] planted in Canada a *living tree* capable of growth and expansion within its natural limits." It follows that it is for the organs that enforce the constitution to apply the text to the facts as they exist from time to time. This leads to a constant update, renewal, and adaptation of the understanding of texts, even though their

[184] Décision n° 2021-976/977 QPC du 25 février 2022, M. Habib A. et autre [Conservation des données de connexion pour les besoins de la recherche, de la constatation et de la poursuite des infractions pénales].
[185] [1930] AC 124, [1929] All ER Rep 571, 1929 UKPC 86 (BAILII).

terminology itself does not change. It is thus quite natural for traditional constitutional concepts to be adapted to the digital era, without any need for a major constitutional disruption. Whatever the orientation of the judicial interpretation – more or less conservative, more or less progressive, more or less liberal, etc. – and whatever the balance that is struck between competing constitutional values, the basic structural element from the viewpoint of constitutional reasoning remains unchanged. These legal organs have dealt with the cases they had to examine invoking provisions that had been imagined and drafted long ago. None seem to have felt embarrassed to make a decision for this very reason, nor to have refrained from making a decision because platforms did not exist at the time when the relevant constitutional norm was enacted.

53. Beyond this general attitude of legal actors, one author has explicitly claimed that no major change was needed in legal teaching nor, impliedly, in legal concepts, to deal with digital novelties. In his article "Cyberspace and the Law of the Horse",[186] Frank H. Easterbrook contended that instead of inventing specialised concepts for specialised areas in the law, one should first and foremost focus on general theories:

> "the best way to learn the law applicable to specialized endeavors is to study general rules. Lots of cases deal with sales of horses; others deal with people kicked by horses; still more deal with the licensing and racing of horses, or with the care veterinarians give to horses, or with prizes at horse shows. Any effort to collect these strands into a course on "The Law of the Horse" is doomed to be shallow and to miss unifying principles. Teaching 100 percent of the cases on people kicked by horses will not convey the law of torts very well. Far better for most students-better, even, for those who plan to go into the horse trade-to take courses in property, torts, commercial transactions, and the like, adding to the diet of horse cases a smattering of transactions in cucumbers, cats, coal, and cribs. Only by putting the law of the horse in the context of broader rules about commercial endeavors could one really understand the law about horses.
>
> Now you can see the meaning of my title. When asked to talk about "Property in Cyberspace," my immediate reaction was, "Isn't this just the law of the horse?" I don't know much about cyberspace; what I do know will be outdated in five years (if not five months!); and my predictions about the direction of change are worthless, making any effort to tailor the law to the subject futile. And if I did know something about computer networks, all I could do in discussing "Property in Cyberspace" would be to isolate the subject from the rest of the law of intellectual property, making the assessment weaker.
>
> This leads directly to my principal conclusion: Develop a sound law of intellectual property, then apply it to computer networks."[187]

Although Easterbrook does not explicitly make such a sweeping claim, according to his line of reasoning, there is no need for a digital conception or a digital version of each of the fundamental rights that have so far populated our declarations of rights. Instead of a specifically digital version of free speech, human dignity, equality, privacy, non-discrimination, etc., why not simply make use of the traditional concepts, for which a whole tradition of scholarship and rich body of legal doctrine already exist? Ockham's razor also avails against constitutional prolixity: (constitutional) *entia non sunt multiplicanda praeter necessitatem*.

[186] F.H. Easterbrook, 'Cyberspace and the Law of the Horse', *University of Chicago Legal Forum,* no. 207 (1996).
[187] F.H. Easterbrook, 'Cyberspace and the Law of the Horse', *University of Chicago Legal Forum,* no. 207 (1996), pp. 207-208.

4.1.2. The horizontal effect of classical fundamental rights

54. Remaining faithful to the classical fundamental rights and refraining from hastily developing a whole new population of *ad hoc* digital rights, whose number would inevitably be bound to increase with technological changes, does not exclude original uses of the traditional grammar of constitutionalism. One of the (conceptually) simplest, but (empirically) strongest consists in changing the fundamental rights' application orientation.

According to a classical conception, fundamental rights protect individuals or groups vis-à-vis the public authorities. Exclusively governed by this "vertical" logic, they do not apply to relations between individuals. However, this perspective has been challenged, so that the acts of private persons are sometimes included among the objects that may be confronted with constitutional requirements. This leads to a considerable extension of the scope of intervention of constitutional judges, which can be based on the fact that certain private powers are just as influential and just as likely to undermine fundamental rights as public powers.[188] Few systems, as Hans Carl Nipperdey urged,[189] allow a break with the idea of a purely vertical application of constitutional provisions and add what is known as the 'horizontal effect' or 'third party effect' (Drittwirkung) of fundamental rights.

55. Among the states that admit this type of relationship are for example Colombia,[190] Peru,[191] or Paraguay.[192] In Portugal, Article 18.1 of the Constitution provides that "Constitutional norms relating to rights, freedoms and guarantees are directly applicable and binding on public and private bodies." In South Africa, Article 8.2 of the Constitution similarly states that "A provision of the Bill of Rights is binding on a person or body corporate if and to the extent that it is applicable to that person or body corporate, having regard to the nature of the right and the nature of any obligation imposed by that right." Article 13.5 of Jamaica's

[188] See F. Gamillscheg, 'Die Grundrechte im Arbeitsrecht ', *Archiv für die civilistische Praxis*, No. 164 (1964), pp. 385-445 ; P. De Vega García, 'La eficacia frente a particulares de los derechos fundamentales (la problemática de la *Drittwirkung der Grundrechte*)', *Pensamiento Constitucional*, Vol. 9, no. 9 (2003,) pp. 23-43, esp. pp. 31-34 ; I. Escobar Fornos, 'Las partes en el amparo constitucional', in *Estudios jurídicos*, Vol. 2 (Centro de documentación e información judicial, 2010), 640 p., pp. 187-206 ; I. Escobar Fornos, *Los derechos humanos y el control del poder privado* (Bogotá, Instituto de estudios constitucionales Carlos Restrepo Piedrahita, 2001), 53 p.

[189] H.C.Nipperdey, *Grundrechte und Privatrecht* (Krefeld, Scherpe, 1961), 27 p. See also : W. Leisner, *Grundrechte und Privatrecht* (München : C.H. Beck, 1960), 414 p. To read about various opinions on this topic, see e.g. M. Mendoza Escalante, 'La eficacia de los derechos fundamentales en las relaciones entre particulares', *Pensamiento constitucional*, Vol. 11, no. 1 (2005), pp. 219-271 ; T. Hochmann and J. Reinhardt, *L'effet horizontal des droits fondamentaux*, préf. Masing J. (Paris : Pedone, 2018), 216 p. ; A.J. Estrada, 'Los tribunales constitucionales y la eficacia entre particulares de los derechos fundamentales', in *Teoría del neoconstitucionalismo. Ensayos escogidos,* M. Carbonell (Madrid : Trotta, 2007), pp. 121-157 ; D. Valadés, 'La protección de los derechos fundamentales frente a los particulares', in *La justicia constitucional y su internacionalización*, A. Von Bogdandy, E. Ferrer Mac-Gregor and M. Morales Antoniazzi M., Vol. 1 (2010) pp. 681-710 ; D. Valadés, 'La protección de los derechos fundamentales frente a particulares', in *La ciencia del derecho procesal constitucional. Estudios en homenaje a Héctor Fix-Zamudio en sus cincuenta años como investigador del derecho*, E. Ferrer Mac-Gregor and J. Silvero Salgueiro (Asunción: UNAM, 2012), pp. 237-266 ; D. Friedmann and D. Barak-Erez, *Human Rights in Private Law* (Oxford, Portland: Hart Publishing, 2001), 393 p. ; A. Sajó and R. Uitz, *The Constitution in Private Relations. Expanding Constitutionalism* (Utrecht : Eleven International Pub., 2005), 322 p. ; E. Cifuentes Muñoz, *La eficacia de los derecho fundamentales frente a particulares* (México : UNAM, Corte de Constitucionalidad de Guatemala, 1998), 61 p. ; J. Mijangos y González, *Los derechos fundamentales en las relaciones entre particulares. Análisis del caso mexicano*, pról. A. Zaldívar Lelo de Larrea, col. Biblioteca Porrúa de derecho procesal constitucional, Vol. 18 (México, Porrúa : Instituto mexicano de derecho procesal constitucional, 2007), 314 p. ; N.P. Sagüés, *Derecho procesal constitucional, Logors y obstàculos* (Buenos Aires, Esutidos de Derecho Procesal Constitucional IV, 2006) ; A. Clapham, *Human Rights in the Private Sphere* (Oxford: Oxford UP, 1993), 385 p. ; J. Fedtke and D. Oliver, *Human Rights and the Private Sphere. A Comparative Study* (New York: Routledge-Cavendish, 2007), 594 p. ; S. Gardbaum, 'The "Horizontal" Effect of Constitutional Rights', *Michigan LR*, Vol. 102 (2003), pp. 387-459, pp. 436-437 ; J. Knox, Horizontal Human Rights Law, *American Journal of International Law*, no. 102 (2018), p. 1.

[190] Columbian Political Constitution, Art. 4 decree 291/1991.

[191] Peruvian Constitution, art. 200.

[192] Constitution of the Republic of Paraguay, art. 134.

Charter of Fundamental Rights and Freedoms (Constitutional Amendment) Act 2011 also lays down the principle of horizontal effect. In Argentina, in the Samuel Kot case,[193] the Supreme Court took a similar position, holding, before the Constitution enshrined it in 1994, the possibility of an amparo protecting the fundamental rights of individuals against other private persons.[194] According to the Court, "The protection of fundamental rights provided for in the Constitution would not be sufficient if we ignore the current reality in which there are consortia, trade unions, professional associations and large companies that are not only capable of confronting the power of the State, but also threaten or violate the fundamental rights of individuals [...] to ensure constitutional protection, the fact that the violation of fundamental rights has been committed by the public power or by individuals is not decisive. The source of the illegitimate violation of the fundamental right is not decisive either. Only the fundamental right itself is decisive and must be protected."

56. Because big tech exercise functions that were previously, according to the traditional grammar of constitutionalism, public functions, because the threat they pause to fundamental rights are the ones the state used to pose, it is not so strange to claim that the rights which applied in the relations between the state and the citizens, according to a vertical axis, should now apply between private powers and the citizens, according to a horizontal axis. In this respect, the (formal or organic) self-constitutionalisation of private powers that results from their own social dynamics is met by the (substantive) constitutionalisation of the principles they have to respect.

According to Giovanni De Gregorio, in the European context, the use of horizontal effect doctrine was used to fill regulatory gaps.[195] He claims that:

> "The horizontal doctrine may promise to go beyond the public/private division by extending constitutional obligations even to the relationship between private actors (i.e. platform/user). Unlike the liberal spirit of the vertical approach, this theory rejects a rigid separation where constitutional rules apply vertically only to public actors to ensure the liberty and autonomy of private actors. In another way, the horizontal doctrine is concerned with the issue of whether and to what extent constitutional rights can affect the relationships between private actors."[196]

In UPC Telekabel Wien GmbH v. Constantin Film Verleih GmbH, Wega Filmproduktionsgesellschaft mbH C-314/12, the European Court of Justice thus directly discussed the application of conflicting fundamental rights to digital actors. The possibility for a national court to issue an injunction prohibiting an internet service provider from allowing its customers access to a website placing protected subject-matter online without the agreement of the rightholders was admitted. But to reach this conclusion, the ECJ had to pay attention to the necessity "to strike a balance, primarily, between (i) copyrights and related rights, which are intellectual property and are therefore protected under Article 17(2) of the Charter, (ii) the freedom to conduct a business, which economic agents such as internet

[193] Fallos 241:291 (1958).
[194] Sagüés N.P., *Derecho procesal constitucional*, Logors y obstàculos (Buenos Aires, Esutidos de Derecho Procesal Constitucional IV, 2006) pp. 199-213.
[195] G. de Gregorio, *Digital Constitutionalism in Europe. Reframing Rights and Powers in the Algorithmic Society* (Cambridge: Cambridge UP, 2022), pp. 192-201.
[196] *Ibid*., p. 193.

service providers enjoy under Article 16 of the Charter, and (iii) the freedom of information of internet users, whose protection is ensured by Article 11 of the Charter."[197]

In *Tobias Mc Fadden v. Sony Music Entertainment Germany GmbH*, C-484/14 the European Court of Justice held that EU law did not preclude

> "the grant of an injunction […] which requires, on pain of payment of a fine, a communication network access provider to prevent third parties from making a particular copyright-protected work or parts thereof available to the general public from an online (peer-to-peer) exchange platform via the internet connection available in that network, where that provider may choose which technical measures to take in order to comply with the injunction even if such a choice is limited to a single measure consisting in password-protecting the internet connection, provided that those users are required to reveal their identity in order to obtain the required password and may not therefore act anonymously."[198]

In order to reach such a conclusion, it had to balance the right of access providers to freedom to conduct a business, as it is protected by article 16 of the Charter of fundamental rights, and the right of the people at large to freedom of information, as it is protected by article 11 of the same Charter.

The judicial analysis of the balancing of fundamental rights in the relations between platforms and their private users is identical to the one any constitutional court might have conducted with respect to state interference with fundamental rights. As it is embodied in the GDPR, European digital constitutionalism follows this line. According to Giovanni De Gregorio,

> "The GDPR can be considered as the expression of a new societal pactum. It is no more enough to look at such fundamental rights in a negative vertical perspective, thus binding only public actors to individuals, but it is also necessary to look at them as triggers of a positive responsibility to intervene at the horizontal level to remedy the asymmetry of power fostered by the algorithmic society. In other words, by translating constitutional values in legal principles and rights, the GDPR is an expression of the new phase of European digital constitutionalism. The GDPR breaks the vertical nature of fundamental rights, recognising that individuals need to be protected by automated decision-making not only when performed by public actors but also when performed by powerful private companies such as online platforms."[199]

This text offers a widely applicable unified legislation that testifies to this paradigm shift.

57. Although the rationale for this evolution is rather straightforward, it is not automatically admitted. For example in the United States, the prohibition of state intervention imposed by the First Amendment, and the empowerment of private firms that followed, have not been read as implying any horizontal constitutional obligations on the platforms.[200] When it is accepted, the horizontal effect of fundamental rights in the digital era represents an important change. It testifies to the need to understand, proclaim, and enforce rights beyond the role of national governments. A "multi-stakeholders approach"[201] seems

[197] § 47.
[198] § 101.
[199] G. de Gregorio, *Digital Constitutionalism in Europe. Reframing Rights and Powers in the Algorithmic Society* (Cambridge: Cambridge UP, 2022), pp. 254-255.
[200] See e.g. Manhattan Community Access Corp. v. Halleck, 587 US ___ (2019).
[201] On this dimension, see esp. R. Hill, 'The Internet, Its Governance, and the Multi-Stakeholder Model', *Emerald Insight Info*, Vol. 16 (2014), pp. 14-46 ; I. Pernice, 'Global Constitutionalism and the Internet. Taking People Seriously', in *Law Beyond The State. Pasts and Futures*, R. Hofmann and S. Kadelbach (Frankfurt, New York: Campus Verlag, 2016, pp. 151-205 ; N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019), p. 113.

indeed necessary. Although it opens new spaces for the application of pre-existing fundamental rights in the digital era, it falls short of embracing a totally updated version of constitutionalism.

4.2. Thick digital constitutionalism: new fundamental rights for the digital age

58. Not all constitutional scholars and constitutional actors are convinced by the cautious attitude thin digital constitutionalism expresses. Another reading of the preceding cases where courts adapted, apparently without any major difficulty, pre-existing traditional constitutional rights to contemporary situations, is possible. Instead of evidence of the fascinating adaptability of old principles, which would testify to their very fundamentality, these decisions may be understood as only reaching second best. Because, when a judge understands her function within the framework of the constitutional principle of the separation of powers, she frequently shows some reluctance to innovate too brutally. This is why she is led to make use of the available constitutional principles. But this form of constraint should not lead one to imply that the situation, and especially the protection of constitutional values, could not have been better with new, more adapted tools. This is why another trend in the digital constitutional discussion asks for an update, wondering for example whether a "new generation of fundamental rights" is not in order.[202] As Dafna Dror-Shpoliansky and Yuval Shany put it,

> "Pursuant to the normative equivalency paradigm, access to the Internet, for example, comes squarely under the protection of the right to freedom of expression (Article 19 of the ICCPR) because the Internet is a medium that facilitates seeking, receiving and imparting information and ideas. A freedom of expression framework captures, however, only a small fraction of the needs and interests of online users and the threats posed to them by abusive exploitation of the Internet by malicious actors. Nor does it fully accommodate the unique ethical, legal and policy challenges that arise out of the new ubiquitous space of the Internet where completely new forms of social interactions and relationships of power occur and for which new vocabularies of rights and new categories of right holders and duty holders need to be developed. The limited 'fit' between traditional human rights, and the reality of digital technology, underlies past and current attempts to develop new digital human rights.
>
> We propose a framework based on three sets of actual responses to the unique challenges to existing international human rights law posed by digital technology: the radical reinterpretation of existing rights; the development of new digital rights; and the recognition of new right holders and duty holders."[203]

4.2.1. Piecemeal approaches

[202] P. Türk, *Les droits et libertés numériques : une nouvelle génération de droits fondamentaux ?* (Paris : LGDJ, coll. Droit et Société, 2023) ; P. Türk, 'Les droits et libertés fondamentaux à l'heure du numérique : évolution ou révolution ?', *Annuaire internationale de justice constitutionnelle*, no. 37 (2021), pp. 89-100 ; D. Dror-Shpoliansky and Y. Shany, 'It's the End of the (Offline) World as We Know It: From Human Rights to Digital Human Rights – A proposed Typology', *European Journal of International Law*, Vol. 32 (2021), pp. 1249-1282 ; A.A. Arroyo Cisneros, J.R. Nevarez del Rivero and L.F. Contreras Cortés, *Derechos humanos y nuevas tecnologías* (México, Tirant lo Blanch, 2023).

[203] D. Dror-Shpoliansky and Y. Shany, 'It's the End of the (Offline) World as We Know It: From Human Rights to Digital Human Rights – A proposed Typology', *European Journal of International Law*, Vol. 32 (2021), 1249-1282, pp. 1265-1266.

59. A first kind of effort shows some empathy for a reinvention of constitutional rights. But the effort consists most of all of an addition of limited, specific, new fundamental rights on a case by case basis.

Constitutional Courts have sometimes been at the vanguard of this movement. For example, in France, the Constitutional Council identified a constitutional right to access to the Internet:

> "**12.** Considérant qu'aux termes de l'article 11 de la Déclaration des droits de l'homme et du citoyen de 1789 : « La libre communication des pensées et des opinions est un des droits les plus précieux de l'homme : tout citoyen peut donc parler, écrire, imprimer librement, sauf à répondre de l'abus de cette liberté dans les cas déterminés par la loi » ; qu'en l'état actuel des moyens de communication et eu égard au développement généralisé des services de communication au public en ligne ainsi qu'à l'importance prise par ces services pour la participation à la vie démocratique et l'expression des idées et des opinions, ce droit implique la liberté d'accéder à ces services."[204]

For evident reasons, this right could not have been identified before the technological revolution. Its identification as a fundamental constitutional right, to be protected as well as the others, and to be balanced against the others, was made by judges. This strategy of judge-made new fundamental right was also that of the Constitutional Chamber of the Supreme Court of Costa Rica. In the ruling n° 12790-2010 of 30 July 2010, drawing inspiration from the Constitutional Council, it proclaimed the fundamental right to access to Internet, and frequently reiterated this from then on:

> "debe decirse que el avance en los últimos veinte años en materia de tecnologías de la información y comunicación (TIC´s) ha revolucionado el entorno social del ser humano. Sin temor a equívocos, puede afirmarse que estas tecnologías han impactado el modo en que el ser humano se comunica, facilitando la conexión entre personas e instituciones a nivel mundial y eliminando las barreras de espacio y tiempo. En este momento, el acceso a estas tecnologías se convierte en un instrumento básico para facilitar el ejercicio de derechos fundamentales como la participación democrática (democracia electrónica) y el control ciudadano, la educación, la libertad de expresión y pensamiento, el acceso a la información y los servicios públicos en línea, el derecho a relacionarse con los poderes públicos por medios electrónicos y la transparencia administrativa, entre otros. Incluso, se ha afirmado el carácter de derecho fundamental que reviste el acceso a estas tecnologías, concretamente, el derecho de acceso a la Internet o red de redes. En tal sentido, el Consejo Constitucional de la República Francesa, en la sentencia No. 2009-580 DC de 10 de junio de 2009, reputó como un derecho básico el acceso a Internet, al desprenderlo, directamente, del artículo 11 de la Declaración de los Derechos del Hombre y del Ciudadano de 1789. Lo anterior, al sostener lo siguiente: *"Considerando que de conformidad con el artículo 11 de la Declaración de los derechos del hombre y del ciudadano de 1789: «La libre comunicación de pensamientos y opiniones es uno de los derechos más valiosos del hombre: cualquier ciudadano podrá, por consiguiente, hablar, escribir, imprimir libremente, siempre y cuando responda del abuso de esta libertad en los casos determinados por la ley»;* ***que en el estado actual de los medios de comunicación y con respecto al desarrollo generalizado de los servicios de comunicación pública en línea así como a la importancia que tienen estos servicios para la participación en la vida democrática y la expresión de ideas y opiniones, este derecho implica la libertad de acceder a estos servicios; (…)"*** (el resaltado no pertenece al original). En este contexto de la sociedad de la información o del conocimiento, se impone a los poderes públicos, en beneficio de los administrados, promover y garantizar, en forma universal, el acceso a estas

[204] Décision n° 2009-580 DC du 10 juin 2009, Loi favorisant la diffusion et la protection de la création sur internet.

> nuevas tecnologías. Partiendo de lo expuesto, concluye este Tribunal Constitucional que el retardo verificado en la apertura del mercado de las telecomunicaciones ha quebrantado no solo el derecho consagrado en el artículo 41 de la Constitución Política sino que, además, ha incidido en el ejercicio y disfrute de otros derechos fundamentales como la libertad de elección de los consumidores consagrada en el artículo 46, párrafo in fine, constitucional, el derecho de acceso a las nuevas tecnologías de la información, el derecho a la igualdad y la erradicación de la brecha digital (info-exclusión) –artículo 33 constitucional-, el derecho de acceder a la internet por la interfase que elija el consumidor o usuario y la libertad empresarial y de comercio."[205]

60. Beyond judicial updating, several States have adopted a modest position and punctually added to their constitutions new fundamental rights whose aim is to address digital concern. These limited constitutional amendments target specific rights and are limited in scope. This is for example the case of Chile, which has already been mentioned.[206] Similarly, the Greek constitution was amended to address the challenges of the information society. Article 5A reads:

> "1. All persons have the right to information, as specified by law. Restrictions to this right may be imposed by law only insofar as they are absolutely necessary and justified for reasons of national security, of combating crime or of protecting rights and interests of third parties.
> 2. All persons have the right to participate in the Information Society. Facilitation of access to electronically transmitted information, as well as of the production, exchange and diffusion thereof, constitutes an obligation of the State, always in observance of the guarantees of articles 9, 9A and 19."

These articles provide additional rights that influence the way the preceding one is used:

> "Article 9
> 1. Every person's home is a sanctuary. The private and family life of the individual is inviolable. No home search shall be made, except when and as specified by law and always in the presence of representatives of the judicial power.
> 2. Violators of the preceding provision shall be punished for violating the home's asylum and for abuse of power, and shall be liable for full damages to the sufferer, as specified by law.
> Article 9A
> All persons have the right to be protected from the collection, processing and use, especially by electronic means, of their personal data, as specified by law. The protection of personal data is ensured by an independent authority, which is constituted and operates as specified by law.
> Article 19
> 1. Secrecy of letters and all other forms of free correspondence or communication shall be absolutely inviolable. The guaranties under which the judicial authority shall not be bound by this secrecy for reasons of national security or for the purpose of investigating especially serious crimes, shall be specified by law.
> 2. Matters relating to the constitution, the operation and the functions of the independent authority ensuring the secrecy of paragraph 1 shall be specified by law.
> 3. Use of evidence acquired in violation of the present article and of articles 9 and 9A is prohibited."

In 2022, Brasil adopted Constitutional amendment n° 115, which modified several articles of the Constitution. Pursuant to the new wording,

[205] See Voto 2010-12790 Sala Constitucional CR, available at : https://docs.google.com/document/d/1_n7anxwm9Cd4fJT-rP6zt1vvjHMnA0DFibTV-AMmCg0/edit.
[206] See supra, 2.7.

> "Art. 5º Todos são iguais perante a lei, sem distinção de qualquer natureza, garantindo-se aos brasileiros e aos estrangeiros residentes no País a inviolabilidade do direito à vida, à liberdade, à igualdade, à segurança e à propriedade, nos termos seguintes: […] LXXIX - é assegurado, nos termos da lei, o direito à proteção dos dados pessoais, inclusive nos meios digitais."

Moreover, pursuant to Article 21, it belongs to the Union "XXVI - organizar e fiscalizar a proteção e o tratamento de dados pessoais, nos termos da lei." Article 22 adds that "Compete privativamente à União legislar sobre: […] XXX - proteção e tratamento de dados pessoais." Being a major concern in the digital age, the protection of personal data has led the constituent power to update the 1988 Constitution. Relevant bills are currently debated in the Parliament. Projetos de Lei nºs 5.051, of 2019, 21, of 2020, and 872, of 2021, aim at "estabelecer princípios, regras, diretrizes e fundamentos para regular o desenvolvimento e a aplicação da inteligência artificial no Brasil."[207] Provisions testifying to a similar perspective can also be found in the constitutions of Somalia,[208] Barhein,[209] Bhutan,[210] and Mexico.[211]

At the supranational level, the Charter of Fundamental Rights of the European Union from the outset contained the following provision:

> "Article 8. Protection of personal data
> 1. Everyone has the right to the protection of personal data concerning him or her.
> 2. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law. Everyone has the right of access to data which has been collected concerning him or her, and the right to have it rectified.
> 3. Compliance with these rules shall be subject to control by an independent authority."

61. This limited, case by case approach testifies to the perceived need to revamp constitutional rights and go beyond what was foreseen by the founding fathers of contemporary constitutionalism. Digital constitutionalism is not the mere continuation of analog constitutionalism. To be precisely faithful to the purpose of constitutionalism – limiting power and protecting rights – it needs to reinvent itself. This is why other stakeholders in the digital constitutional discussion tend to consider such an approach too limited. NGOs, activists, associations, interest groups, and scholars, have sometimes asked for full-blown new charters specifically dedicated to the digital. Even if the formal vehicle for this constitutional mutation is the same as the old one, and preserves the vernacular of XVIIIth

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[207] See the final report of the Commission of the Senate: Relatório final Comissão de Juristas instituída pelo Ato do Presidente do Senado No; 4, de 2022, destinada a subsidiar a elaboração de minuta de substitutivo para instruir a apreciação dos Projetos de Lei nºs 5.051, de 2019, 21, de 2020, e 872, de 2021, que têm como objetivo estabelecer princípios, regras, diretrizes e fundamentos para regular o desenvolvimento e a aplicação da inteligência artificial no Brasil.

[208] "*Article 18. Freedom of Expression and Opinions :*

> *1. Every person has the right to have and express their opinions and to receive and impart their opinion, information and ideas in any way.*
> *2. Freedom of expression includes freedom of speech, and freedom of the media, including all forms of electronic and web-based media.*
> *3. Every person has the right to freely express their artistic creativity, knowledge, and information gathered through research.*"

[209] "*Article 26. The freedom of postal, telegraphic, telephonic and electronic communication is safeguarded and its confidentiality is guaranteed. Communications shall not be censored or their confidentiality breached except in exigencies specified by law and in accordance with procedures and under guarantees prescribed by law.*"

[210] "*Art. 7.5 : There shall be freedom of the press, radio and television and other forms of dissemination of information, including electronic.*"

[211] « *Art. 6 : El Estado garantizará el derecho de acceso a las tecnologías de la información y comunicación, así como a los servicios de radiodifusión y telecomunicaciones, incluido el de banda ancha e internet. Para tales efectos, el Estado establecerá condiciones de competencia efectiva en la prestación de dichos servicios.*"

century declarations of fundamental rights, the substance widely differs and testifies to a paradigm shift that takes stock with the new world in which we live.

4.2.2. Magna Carta 2.0

62. Borrowing the vocabulary of XVIIIth constitutionalism, actors of the digital environment have asked for the establishment of full-blown new declarations of fundamental rights specifically dedicated to digital issues. Not only would these documents specify, adapt, or update traditional fundamental rights for new contexts or new applications, but they would articulate a coherent revamped approach to the matter. Dennis Redeker, Lex Gill, and Urs Gasser,[212] as well as Andrea Pettrachin,[213] Mauro Santaniello, Nicola Palladino, Maria Carmela Catone, and Paolo Diana,[214] and Dafna Dror-Shpoliansky and Yuval Shany[215] have reviewed dozens of initiatives. These come from international organisations, states, MPs, governments, NGOs, activists, civil society groups, or private firms. They have several possible statuses: proposals of strictly normative documents, recommendations, non-binding statements, or exploratory documents. With a more limited object in mind, Jessica Fjeld, Nele Achten, Hannah Hilligoss, Adam Nagy, and Madhu Srikumar from the Berkman Klein Center for Internet & Society at Harvard University similarly reviewed a wide sample of documents specifically addressing artificial intelligence.[216]

Although each suggestion has specificities of its own, both with respect to its expression and to its exact scope and content, the proposals overlap and testify to the emergence of a form of consensus. From a formal or symbolic viewpoint, which is by no means secondary in the analysis of constitutional cultures,[217] they suggest to what extent the vehicle of a declaration of fundamental rights is deemed appropriate in order to establish,

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[212] L. Gill, D. Redeker and U.Gasser, 'Towards Digital Constitutionalism? Mapping Attempts to Craft and Internet Bill of Rights', *Berkman Center Research Publication,* No. 2015-15 (2015) ; L. Gill, D. Redeker and U.Gasser , 'Towards Digital Constitutionalism? Mapping Attemps to Craft an Internet Bill of Rights', *The International Communication Gazette*, Vol. 80 (2018), pp. 302-319.

[213] A. Pettrachin, 'Towards a Universal Declaration on Internet RIghts and Freedoms', *The International Communication Gazette*, Vol. 80 (2018), pp. 337-353.

[214] M. Santaniello et al., 'The Language of Digital Constitutionalism and the Role of National Parliaments', *The International Communication Gazette*, Vol. 80 (2018), pp. 320-336.

[215] D. Dror-Shpoliansky and Y. Shany, 'It's the End of the (Offline) World as We Know It: From Human Rights to Digital Human Rights – A proposed Typology', *European Journal of International Law*, Vol. 32 (2021), pp. 1249-1282. See also Y. Shany, 'Digital Rights and the Outer Limits of International Human Rights Law', *German Law Journal* (2023), pp. 461–472.

[216] J. Fjeld et al., 'Principled Artificial Intelligence: Mapping Consensus in Ethical and Rights-based Approaches to Principles for AI', *Berkman Klein Center Research Publication*, No. 220-1, (2020), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3518482 ; see also Conseil d'Etat, *Le numérique et les droits fondamentaux* (Etude annuelle 2014), available at : https://www.vie-publique.fr/rapport/34281-etude-annuelle-2014-du-conseil-detat-le-numerique-et-les-droits-fonda ; OECD, Recommendaton of the Council on Artificial Intelligence (2019), available at : https://legalinstruments.oecd.org/en/instruments/oecd-legal-0449#:~:text=1.2.&text=a)AI%20actors%20should%20respect,and%20internationally%20recognised%20labour%20rights ; European Commission, *White Paper On Artificial Intelligence - A European approach to excellence and trust*, (February 2020), available at : https://op.europa.eu/fr/publication-detail/-/publication/ac957f13-53c6-11ea-aece-01aa75ed71a1; European Parliament, *Governing data and artificial intelligence for all. Models for sustainable and just data governance*, (European Parliamentary Research Service, Scientific Foresight Unit, July 2022), available at : https://www.europarl.europa.eu/RegData/etudes/STUD/2022/729533/EPRS_STU(2022)729533_EN.pdf ; OECD, *Declaration on a Trusted, Sustainable and Inclusive Digital Future* (Adopted in December 2022), available at : https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0488 ; Committee on Artificial Intelligence, *Revised Zero Draft [Framework] Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law* (January 2023), available at : https://rm.coe.int/cai-2023-01-revised-zero-draft-framework-convention-public/1680aa193f.

[217] M. Neves, *A constitucionalizacao simbólica*, (São Paulo : W.M.F. Martins Fontes, 2011) ; M. Tushnet, 'The Possibilities of Comparative Constitutional Law', *The Yale Law Journal*, Vol. 108 (1999), pp. 1225-1309.

proclaim, and protect essential values. From a substantive viewpoint, the convergence of these documents is twofold. The first is on the descriptive side. It testifies to a widely shared perception of the current situation, with respect to the opportunities as well as the risks that the digital environment offers. The second is on the normative side, and relates to the kind of values that need to be protected and promoted online. It allows to identify a core of digital fundamental rights, based on transfers or extensions of classical rights from the analog environment to the digital environment, and full-blown specifically tailored digital rights, as well as techniques to limit online power as well as to ensure its accountability and responsivity to users' interests and will. These largely coincide with the efforts promoted to identify an ethic of the digital sphere.[218] This is no coincidence, as digital ethics, computer ethics, robot ethics, or artificial intelligence ethics, are frequently framed in terms of "rights," which is of course a definitely legal notion. The very fact that the ethical debate regarding the digital is framed in terms of fundamental rights testifies to the "legalisation" or "juridification" of the debate.[219] For good or bad, this suggests that law, and especially constitutional law, is widely perceived as the ultimate safeguard from various sides.

63. Without doing justice to the variety and creativity of these documents, suggestions, and initiatives, one may identify the following core of a would-be "Internet Bill of Rights."[220] They might represent what are, today, the "building blocks for the constitutional material of the digital sphere."[221] Brushing this with big strokes, and excluding (a) digital specifications of traditional fundamental rights like freedom of speech, freedom of association, equality, non-discrimination, etc., which may be taken for granted, and (b) (necessarily) digital rights for non-human beings,[222] two major categories of digital rights strictly so-called, between which overlap is not totally excluded, can be delineated. The first is more precisely dedicated to individual prerogatives, whereas the second category addresses more collective or structural principles that directly connect individuals or groups with issues of governance in the digital space.

Among the fundamental individual rights online that should be promoted, one may list the following as part of what Danielle K. Citron, calls a series of "Cyber Civil Rights,"[223]

[218] See similarly High-Level Expert Group on Artificial intelligence, *Ethics Guidelines for Trustworthy AI* (8th April 2019), p.9, available at : https://op.europa.eu/en/publication-detail/-/publication/d3988569-0434-11ea-8c1f-01aa75ed71a1 ; Argentina, Jefatura de Gabinete de ministros, Subsecretaría de tecnologías de la información, Disposición 2/2023, DI-2023-2-APN-SSTI#JGM, Recomendaciones para una Inteligencia Artificial Fiable, available at : https://www.boletinoficial.gob.ar/detalleAviso/primera/287679/20230602.

[219] L.C. Blichner and A. Molander, 'What is juridification?', *Working Paper,* No. 14 (University of Oslo, Arena Centre for Europen Studies, March 2005), available at : https://www.sv.uio.no/arena/english/research/publications/arena-working-papers/2001-2010/2005/wp05_14.pdf

[220] A. Oates, 'Towards an Internet Bill of Rights', in *The Onlife Manifesto. Being Human in a Hyperconnected Era*, L. Floridi (Springer, 2015) ; M. Bassini and O. Pollicino, *Verso un Internet Bill of Rights* (Roma, Aracne, 2015).

[221] L. Gill, D. Redeker and U.Gasser , 'Towards Digital Constitutionalism? Mapping Attemps to Craft an Internet Bill of Rights', *The International Communication Gazette*, Vol. 80 (2018), pp. 302-319, p. 304.

[222] See e.g. on this topic, R. Van Est and J. Gerritsen, *Human Rights in the Robot Age: Challenges Arising from the Use of Robotics, Artificial Intelligence, and Virtual and Augmented Reality*, (Rathenau Institut, 2017), available at : https://www.rathenau.nl/sites/default/files/2018-02/Human%20Rights%20in%20the%20Robot%20Age-Rathenau%20Instituut-2017.pdf ; D. J. Gunkel, *Robot Rights*, (Cambridge, Massachusetts: The MIT Press, 2018).

[223] D. K. Citron, 'Cyber Civil Rights', *Boston University LR*, Vol. 89 (2009), pp. 61-125.

Edoardo Celeste "Internet Bill of Rights,"[224] Oreste Pollicino a "digital habeas corpus of substantive and procedural rights,"[225] and a fourth generation of human rights:[226]

- Right to access (including the right not to access)[227]
- Right to data protection[228]
- Right to data control and portability
- Right to erasure or the right to be forgotten[229]
- Right to digital education or literacy[230]
- Right to neuronal autonomy, freedom of choice and informational self-determination[231]
- Right to digital due process, including e.g. the right to information, explanation, and transparency in case of automated, AI-led treatment, and the right to a hearing and to human review in case of automated, AI-led treatment.[232]

[224] E. Celeste, *Digital Constitutionalism: The Role of Internet Bills of Rights* (Abingdon, New York: Routledge, 2023).

[225] O. Pollicino, *Judicial Protection of Fundamental Rights on the Internet. A Road Towards Digital Constitutionalism?* (Oxford: Hart, 2021) p. 205. See also V. Karavas, *Digitale Grundrechte. Elemente einer Verfassung des Informationflusses im Internet* (Baden-Baden: Nomos, 2007).

[226] M. Risse, *Political Theory of the Digital Age Where Artificial Intelligence Might Take Us* (Cambridge University Press, 2023), pp. 137-159. See also R. Dowd, *The Birth of Digital Human Rights. Digitized Data Governance as a Human Rights Issue in the EU* (Springer, 2022).

[227] See e.g. K. Mathiesen, 'The human right to internet access: A philosophical defense', *International Review of Information Ethics*, Vol. 18-12 (2012) ; O. Pollicino, 'Right to Internet Access: Quid Iuris?' in *The Cambridge Handbook on New Human Rights. Recognition, Novelty, Rhetoric*, A. von Arnauld, K. von der Decken and M. Susi (Cambridge University Press, 2019) ; S. Tully, 'A Human Right to Access the Internet? Problems and Prospects', *Human Rights Law Review*, Vol. 14-2 (2014) ; P. De Hert and D. Kloza, 'Internet (Access) As a New Fundamental Right: Inflating the Current Rights Framework?' *European Journal of Law and Technology*, Vol. 3-2 (2012), available at : www.ejlt.org/index.php/ejlt/article/view/123/ 268 (accessed November 2021) ; N. Lucchi, 'Freedom of Expression and the Right to Internet Access' in *Routledge Handbook of Media Law*, M. E. Price, S. G. Verhulst and L. Morgan, (Routledge, 2013) ; M. Maroni, *The Right to Access the Internet: A Critical Analysis of the Constitutionalisation of the Internet* (Helsinki: Unigrafia, 2022) ; A. Simoncini, 'The Constitutional Dimension of the Internet. Some Research Paths', *EUI Working Papers*, Law 2016/16 (2016) available at : https://cadmus.eui.eu/handle/1814/40886 ; regarding more specifically the right to deconnection, see art. L. 2242-17 of the French labour code : *''7° Les modalités du plein exercice par le salarié de son droit à la déconnexion et la mise en place par l'entreprise de dispositifs de régulation de l'utilisation des outils numériques, en vue d'assurer le respect des temps de repos et de congé ainsi que de la vie personnelle et familiale. A défaut d'accord, l'employeur élabore une charte, après avis du comité social et économique. Cette charte définit ces modalités de l'exercice du droit à la déconnexion et prévoit en outre la mise en œuvre, à destination des salariés et du personnel d'encadrement et de direction, d'actions de formation et de sensibilisation à un usage raisonnable des outils numériques.''*

[228] See e.g. L.A. Bygrave, 'Data protection pursuant to the right to privacy in human rights treaties', *International Journal of Law and Information Technology*, Vol. 6-3 (1992), pp. 247-284 ;D.K. Citron, *The fight for privacy: protecting dignity, identity and love in the digital age,* (2022) ; A. Vranaki, *Regulating Social Network Sites. Data Protection, Copyright and Power* (Cheltenham: Edward Elgar, 2022) ; United Nations, 'The Right to Privacy in the Digital Age. Report of the United Nations High Commissioner for Human Rights', A/HRC/39/29 (2018) ; K.M. Yilma, 'Digital Privacy and Virtues of Multilateral Digital Constitutionalism – Preliminary Thoughts', *International Journal L & Info Tech*, Vol. 25 (2017), p. 115 ; S. Marcucci, N. González Alarcón, S.G. Verhulst and E. Wüllhorst, 'Informing the Global Data Future: Benchmarking Data Governance Frameworks', Data & Policy, (2023).

[229] See e.g. A. Tskipurishvili, 'The Right to be Forgotten in the Digital Age', *Geneva Jean Monnet Working Papers* (January 2023), available at : https://www.ceje.ch/files/4316/7696/9004/tskipurishvili-01-2023.pdf

[230] See e.g., meeting this need, D. Cardon, *Culture numérique* (Paris: Presses de Sciences Po, 2022) ; R. Vuorikari, S. Kluzer and Y. Punie, *DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes* (Luxembourg: Publications Office of the European Union, 2022), available at : https://publications.jrc.ec.europa.eu/repository/handle/JRC128415 ; Aa. Vv., 'Didattica Online', *Rivista di digital politics* (2021), available at : https://www.digitalpolitics.it/numeri/#focus2f77-dbb7

[231] See e.g. A. Rouvroy and Y. Poullet, 'The right to informational self-determination and the value of self-development: Reassessing the importance of privacy for democracy' in *Reinventing Data Protection?*, S. Gutwirth, Y. Poullet, P. De Hert P, et al. (Dordrecht: Springer, 2009) pp. 45–76 ; N. A. Farahany, *The Battle for Your Brain: Defending the Right to Think Freely in the Age of Neurotechnology* (St. Martin's Press, 2023) ; F. Jongepier, M. Klenk, *The Philosophy of Online Manipulation* (New York: Routledge, 2022).

[232] See e.g. F. Pasquale, *The Black Box Society. The Secret Algorithms That Control Money and Information*, (Harvard: Harvard University Press, 2015) ; K. Crawford and J. Schultz, 'Big Data and Due Process: Towards a Framework to Redress Predictive Privacy Harms', *Boston College Law Review*, Vol. 55 (2014), p. 93; D. K. Citron, 'Technological Due Process', *Washington University Law Review*, Vol. 85 (2008), p. 1249 ; D.K. Citron and F. Pasquale, 'The Scored Society: Due Process for Automated Predictions', *Washington LR*, Vol. 89 (2014), p. 1 ; M. Hildebrandt and E. De Vries, *Privacy, Due process and the Computational Turn*, (Abingdon, New York: Routledge, 2012) ; F. Mostert, ' "Digital Due Process" : A Need for Online Justice, *Journal for Intellectual Property, Law and Practice* (2020), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3537058 ; K. Crawford and J. Schultz, 'Big Data and Due Process: Towards a Framework to Redress Predictive Privacy Harms', *Boston College Law Review*, Vol. 55 (2014), p. 93. More generally on due process beyond the state's borders, see G. della Cananea, *Due Process of Law Beyond the State* (Oxford: Oxford UP, 2016) ; O. Pollicino and G. de Gregorio, 'Constitutional Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, G. de Gregorio, (Cambridge: Cambridge UP, 2021), p. 21, pp. 3-24 ; M. Kaminski, 'The Right to Explanation,

- In the context of biotechnologies and nanotechnologies, morphological rights are sometimes added in order to address issues related to the possibility to refashion the human form beyond biological limitations.[233]

Governance principles, for the new kind of public space that the digital environment embodies, are not totally disconnected from issues related to what is classically understood as issues of separation of powers or limitation of power. They are the following:

- Internet neutrality[234]
- Accessible and transparent digital public institutions
- Digital democracy in the form of participation for digital stakeholders in the functioning and decision-making process of major firms
- Accountability and transparency of corporate power
- Sustainable digital environment
- Digital rule of law

64. Some states have been sympathetic to this perspective. This is the case of France, whose attempts to promote a harter of digital rights have so far been unsuccessful.[235] In the Philippines, a crowd-sourced legislative proposal entitled "The Magna Carta for Philippine Internet Freedom" was filed twice in the Congress of the Philippines. It was not adopted, but it nevertheless offered a very interesting example of a comprehensive text that addresses most of the issues raised by the development of new technologies. This huge bill was to derogate the Cybercrime Prevention Act of 2012. Among other provisions, it would have protected the Internet as an open network, and promoted many digital rights such as network neutrality, universal access to the Internet, freedom of speech, freedom to innovate, privacy of data, security of data, and intellectual property. It also addressed other issues specific to the digital environment, such as cybercrime (including network sabotage, fraud via ICT, ICT-enabled prostitution and ICT-enabled trafficking in persons, Internet libel, etc.), cyberdefense, cybersecurity, etc. In order to take account of the evolution of technologies, the text provided for its own periodic review. Pursuant to art. 56,

> "1. Mandatory and periodic reviews of the implementing rules and regulations of the Magna Carta for Philippine Internet Freedom shall be done by the offices designated by this Act create implementing rules and regulations. Such reviews shall be performed no less than every three years and no more than every five years, to keep pace with technological advancements and other changes.
>
> 2. Periodic reviews of the implementing rules and regulations and the recommendation of the improvement of the Magna Carta for Philippine Internet Freedom shall be done by the offices

Explained', *Berkeley Technology Law Journal*, Vol. 34-1, (2019) ; E. Bayamlioğlu, 'The right to contest automated decisions under the General Data Protection Regulation: Beyond the so-called "right to explanation" ', *Regulation & Governance*, Vol. 16, no. 4 (2022), pp. 1058-1078 ; G. Malgieri, 'Automated Decision-Making in the EU Member States: The Right to Explanation and Other "Suitable Safeguards" in the National Legislations', *Computer Law & Security Review*, Vol. 35, no. 5 (2019), available at : https://doi.org/10.1016/j.clsr.2019.05.002

[233] M. Coeckelbergh, *The Political Philosophy of Artificial Intelligence* (Cambridge: Polity, 2022), pp. 34-35.

[234] See e.g. T. Wu, 'Network neutrality, broadband discrimination', *Journal of Telecommunications and High Technology Law,* Vol 2 (2003), pp. 141–176 ; C. B. Graber, 'Bottom-Up Constitutionalism: The Case of Net Neutrality', *Transnational Legal Theory*, no. 7-04 (2017), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2941985

[235] See supra, 2.5.

> designated by this Act to create implementing rules and regulations, to keep pace with technological advancements and other changes."

In Nigeria, a full-blown "DIGITAL RIGHTS AND FREEDOM BILL », whose long title is « A BILL FOR AN ACT TO PROVIDE FOR THE PROTECTION OF HUMAN RIGHTS ONLINE, TO PROTECT INTERNET USERS IN NIGERIA FROM INFRINGEMENT OF THEIR FUNDAMENTAL FREEDOMS AND TO GUARANTEE APPLICATION OF HUMAN RIGHTS FOR USERS OF DIGITAL PLATFORMS AND/OR DIGITAL MEDIA AND FOR RELATED MATTERS, 2017 (HB. 98)," was passed in Parliament in 2019. But the President of the Republic never gave his assent to it, in spite of repeated calls by activists and lawyers.[236] The "fundamental rights and freedoms" it enumerates in its second part are the following:

> "3. Right to digital privacy.
> 4. Anonymity.
> 5. Freedom of expression online.
> 6. Freedom of expression of opinion online.
> 7. Freedom of information online.
> 8. Right to peaceful assembly and association online.
> 9. Freedom to learn.
> 10. Protection of privacy of students and learners.
> 11. Right to create public knowledge.
> 12. E-governance and financial transparency."

65. Similar attempts in other states have been more successful. In Brasil, the most ambitious legislation is the "Marco civil da internet".[237] The Lei nº 12.965, of 23 April 2014 established principles, guarantees, rights and duties for the use of Internet in Brazil and set a legislative roadmap for the Union, the States, the Federal District, and the municipalities (art. 1). Pursuant to this Act,

> "Art. 2º A disciplina do uso da internet no Brasil tem como fundamento o respeito à liberdade de expressão, bem como:
> I - o reconhecimento da escala mundial da rede;
> II - os direitos humanos, o desenvolvimento da personalidade e o exercício da cidadania em meios digitais;
> III - a pluralidade e a diversidade;
> IV - a abertura e a colaboração;
> V - a livre iniciativa, a livre concorrência e a defesa do consumidor; e
> VI - a finalidade social da rede.
> Art. 3º A disciplina do uso da internet no Brasil tem os seguintes princípios:
> I - garantia da liberdade de expressão, comunicação e manifestação de pensamento, nos termos da Constituição Federal;
> II - proteção da privacidade;
> III - proteção dos dados pessoais, na forma da lei;
> IV - preservação e garantia da neutralidade de rede;
> V - preservação da estabilidade, segurança e funcionalidade da rede, por meio de medidas técnicas compatíveis com os padrões internacionais e pelo estímulo ao uso de boas práticas;
> VI - responsabilização dos agentes de acordo com suas atividades, nos termos da lei;

[236] See e.g. https://www.thisdaylive.com/index.php/2022/11/30/groups-csos-seek-passage-of-revised-digital-rights-bill/ ; https://thenigerialawyer.com/digital-rights-in-nigeria-amidst-clampdown-by-authorities-pathway-for-enforcement/
[237] L. Moncau and D. Arguelhes, 'The Marco Civil da Internet and Digital Constitutionalism', *in The Oxford Handbook of Online Intermediary Liability*, G. Frosio (Oxford: Oxford UP, 2020), available at : https://academic.oup.com/edited-volume/34234

VII - preservação da natureza participativa da rede;
VIII - liberdade dos modelos de negócios promovidos na internet, desde que não conflitem com os demais princípios estabelecidos nesta Lei.
Parágrafo único. Os princípios expressos nesta Lei não excluem outros previstos no ordenamento jurídico pátrio relacionados à matéria ou nos tratados internacionais em que a República Federativa do Brasil seja parte.
Art. 4º A disciplina do uso da internet no Brasil tem por objetivo a promoção:
I - do direito de acesso à internet a todos;
II - do acesso à informação, ao conhecimento e à participação na vida cultural e na condução dos assuntos públicos;
III - da inovação e do fomento à ampla difusão de novas tecnologias e modelos de uso e acesso; e
IV - da adesão a padrões tecnológicos abertos que permitam a comunicação, a acessibilidade e a interoperabilidade entre aplicações e bases de dados."

In Portugal, a *Carta dos direitos humanos na era digital* was promulgated through Lei 27/2021 of 17 May 2021.[238] Its provisions deal with the following topics:

"Artigo 1.ºObjeto
Artigo 2.ºDireitos em ambiente digital
Artigo 3.ºDireito de acesso ao ambiente digital
Artigo 4.ºLiberdade de expressão e criação em ambiente digital
Artigo 5.ºGarantia do acesso e uso
Artigo 6.ºDireito à proteção contra a desinformação
Artigo 7.ºDireitos de reunião, manifestação, associação e participação em ambiente digital
Artigo 8.ºDireito à privacidade em ambiente digital
Artigo 9.ºUso da inteligência artificial e de robôs
Artigo 10.ºDireito à neutralidade da Internet
Artigo 11.ºDireito ao desenvolvimento de competências digitais
Artigo 12.ºDireito à identidade e outros direitos pessoais
Artigo 13.ºDireito ao esquecimento
Artigo 14.ºDireitos em plataformas digitais
Artigo 15.ºDireito à cibersegurança
Artigo 16.ºDireito à liberdade de criação e à proteção dos conteúdos
Artigo 17.ºDireito à proteção contra a geolocalização abusiva
Artigo 18.ºDireito ao testamento digital
Artigo 19.ºDireitos digitais face à Administração Pública
Artigo 20.ºDireito das crianças
Artigo 21.ºAção popular digital e outras garantias
Artigo 22.ºDireito transitório
Artigo 23.ºEntrada em vigor."

66. Other documents that follow a similar inspiration do not have a fully binding force, but are part of a form of constitutional digital soft law. Such is the case of the "Dichiarazione dei diritti in Internet" adopted in 2015 by the Italian Parliament.[239] Similarly, in Spain, a government-promoted document, the *Carta de derechos digitales* was adopted in 2021 after experts consultation and public consultation.[240] On 25 March 2023, a summit of heads of

[238] See e.g. D. Soares Farinho, 'La Carta portuguesa de derecho shumanos en la era digita', *Revista española de la transparencia* (2021), available at : https://doi.org/10.51915/ret.191
[239] Available at : https://www.camera.it/application/xmanager/projects/leg17/commissione_internet/dichiarazione_dei_diritti_internet_pubblicata.pdf
[240] Available at : https://www.lamoncloa.gob.es/presidente/actividades/Documents/2021/140721-Carta_Derechos_Digitales_RedEs.pdf.

states and governments adopted a Carta Iberoamericana de Principios y Derechos en Entornos Digitales, in order to establish guidelines of national legislation, as well as ensure local transnational cooperation.[241]

At the supranational level, the European Union has adopted a European Declaration on Digital Rights and Principles for the Digital Decade. This document was signed on 15 December 2022. It is understood as a springboard for future action, and articulates principles such as "Putting people at the centre of the digital transformation," "Solidarity and inclusion," "Freedom of choice," "Participation in the digital public space," "Safety, security and empowerment," and "Sustainability."

67. For the moment, it appears that no properly so-called "constitutional" Magna Carta 2.0 was adopted. Limited initiatives have led to the adoption of specific formal constitutional norms, which can truly be presented as the supreme law of the land. But they are limited in scope. The most ambitious documents, which try to articulate a perspective that would be more comprehensive and specifically tailored for digital issues, fall short of being granted what is recognised as the highest legal value in the contemporary constitutional paradigm.

[241] Available at : https://www.segib.org/?document=carta-iberoamericana-de-principios-y-derechos-en-entornos-digitales.

5. Separating and limiting powers

68. Keeping in mind the definition of the French revolutionaries, "Any society in which no provision is made for guaranteeing rights or for the separation of powers, has no Constitution." Along with the protection of fundamental rights, the limitation of power is crucial to the project of modern constitutionalism. In the digital context, the emergence of new private, deterritorialised, omnipresent, powers requires a reconceptualisation of the traditional understanding of the separation of powers. This is due to the impact new technologies have had on the traditional threefold division of powers. More broadly, the emergence of digital power and governance imposes a rethinking of the very distribution of power we were familiar with in analog constitutionalism.[242]

5.1.Dismantling the traditional separation of powers in the digital age

69. The traditional conception of the separation of powers in the constitutional era was famously expressed by Montesquieu in 1748. In *The Spirit of Laws*, he wrote:

> "In every government there are three sorts of power: the legislative; the executive in respect to things dependent on the law of nations; and the executive in regard to matters that depend on the civil law. By virtue of the first, the prince or magistrate enacts temporary or perpetual laws, and amends or abrogates those that have been already enacted. By the second, he makes peace or war, sends or receives embassies, establishes the public security, and provides against invasions. By the third, he punishes criminals, or determines the disputes that arise between individuals. The latter we shall call the judiciary power, and the other simply the executive power of the state."[243]

All three powers are deeply affected by digital development.

5.1.1. The impact of the digital on the three powers

70. What the digital does to constitutional law understood as the grammar for the governance of political societies can be understood by reviewing several changes that have recently affected, are currently affecting, or will probably affect – due to the pace of scientific evolutions, especially in the field of artificial intelligence, appreciating the temporality of the change is not easy[244] – each of the three powers. AI affects public decision-making in a multiplicity of ways.[245]

5.1.1.1. The judiciary

71. First, with respect to the judiciary, the most important line of evolution that lawtechs and legal techs have promoted is related to predictive justice.[246] It is defined as "A

[242] See e.g. C. Casonato, 'Intelligenza artificiale e diritto costituzionale : prime considerazioni', *Diritto pubblico comparato ed europeo* (2019), pp. 101-130.
[243] C.L. Montesquieu, *The Spirit of Laws* (Kitchener: Batoche Books, 2001) Book XI, Ch. 6, available at : https://socialsciences.mcmaster.ca/econ/ugcm/3ll3/montesquieu/spiritoflaws.pdf.
[244] See for an assessment of AI that may very well be outdated, B. Cantwell Smith, *The Promise of Artificial Intelligence: Reckoning and Judgment* (Cambridge: MIT Press, 2019).
[245] C. Kemper, 'Kafkaesque AI? Legal Decision-Making in the Era of Machine Learning', *Intellectual Property and Technology Law Journal*, Vol. 24-2 (2020), pp. 251-294.
[246] Generally, see e.g. M.J. Pérez Estrada, *Fundamentos jurídicos para el uso de la inteligencia artificial en los órganos judiciales* (Valencia: Tirant lo Blanch, 2022) ; R. Susskind, *Online Courts and the Future of Justice* (Oxford: Oxford University Press, 2019), 347 p.

set of instruments developed thanks to the analysis of large masses of legal data which propose, notably on the basis of a calculation of probabilities, to predict as far as possible the outcome of a dispute."[247] Such devices, whose ambition is to eradicate judicial uncertainty or judicial hazard, have the potential to radically change the professional practice of many legal actors. For example, lawyers' research would be easier, more complete, and more precise. Devices like ChatGPT could help them collect information and summaries of cases, draft their briefs and other communications with their clients.[248] They could be able to predict, with varying degrees of certainty, the outcome of a litigation, or the amount of damages. They could recommend to their clients avoiding appearing in court and settling the matter directly with the opposing party, or bargaining with the public prosecutor. Litigants who appear in court without a lawyer could also have better estimates of their chances of success.[249] Lawyers could also sharpen their argumentative strategy, for example insisting in their briefs or pleadings on the most salient features of a case, which, as analysed by the AI, seem to lead to the outcome they want.

Similarly, judges could have a look at the AI-recommended ruling that seems to follow from the past rulings of superior judges, or, if the topic is new, from their colleagues who belong to the same level of court as well as from foreign courts. Instead of having varying attitudes and decisions depending on the location of the court on the territory, and on the necessarily imperfect human perception of the case, similar cases would be dealt with in a similar way. Moreover, as AI systems work faster and more precisely than human beings, as well as being able to deal with many more elements than a human brain, time, energy, and resources could be saved by dealing with repetitive series of similar litigations with the help of AI, whereas purely human attention would be devoted to major complex, new, ethical, or societal issues. In Estonia, where internet access was first considered as a human right, a system of online dispute resolution has been established.[250] Similar systems have been experimented in various countries,[251] and variously perceived by the people.[252] In Brasil, at the states' level, several courts have intensively used AI. At the federal level, the Supreme

[247] B. Dondero, 'Justice prédictive : la fin de l'aléa judiciaire ?', *Recueil Dalloz* (2017), p. 532, cited in L'*open data* des décisions de justice. Mission d'étude et de préfiguration sur l'ouverture au public des décisions de justice, Rapport à Madame le Garde des Sceaux, ministre de la justice (November 2017), available at : http://www.justice.gouv.fr/publication/open_data_rapport.pdf ; on this topic, see e.g. A. Garapon, 'Les enjeux de la justice prédictive', *La semaine juridique*, édition générale no. 1-2 (January 2017), pp. 47-52 ; S. Lebreton-Derrien, 'La justice prédictive', *Archives de philosophie du droit*, Vol. 60 (2018) ; F. Bell, L. Bennett Moses, M. Legg, J. Silove and M. Zalnieriute, *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (Australasian Institute of Judicial Administration, 2022), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4162985

[248] See e.g. N. Shaver, 'The Use of Large Language Models in LegalTech', (Legaltech Hub, 18th February 2023), available at : https://www.legaltechnologyhub.com/contents/the-use-of-large-language-models-in-legaltech/ ; A. Salyzyn, 'The ChatGPT Lawyer: Promises, Perils, and Practicalities' (Slaw online magazine, 23rd February 2023), available at : https://www.slaw.ca/2023/02/23/the-chatgpt-lawyer-promises-perils-and-practicalities/

[249] J. Snyder, 'RoboCourt: How Artificial Intelligence Can Help Pro Se Litigants and Create a "Fairer" Judiciary', *Indiana. J.L. & Soc. Equal, Vol.* 10-1 (July 2022).

[250] D. Cowan, 'Estonia: a Robotically Transformative Nation', The Robotics Law Journal (2019), available at : https://roboticslawjournal.com/global/estonia-a-robotically-transformative-nation-28728942 ; E. Niiler, 'Can AI be a Fair Judge in Court? Estonia Thinks So' (Wired, 25th March 2019), avalaible at : https://www.wired.com/story/can-ai-be-fair-judge-court-estonia-thinks-so/

[251] See e.g. F. Contini and D. Reiling, 'Double normalization: When procedural law is made digita'l, *Oñati Socio-Legal Series*, Vol. 12-3 (2022), available at : https://opo.iisj.net/index.php/osls/article/view/1362/1617

[252] On the acceptance of Robot courts by the people, and the perception of their relative fairness when a hearing is secured and reasons are given, see A. Stremitzer, B.M. Chen and K. Tobia, 'Would Humans Trust an A.I. Judge? More Easily Than You Think', (Slate, 28th February 2023), avalaible at : https://slate.com/news-and-politics/2023/02/chatgpt-law-humans-trust-ai-judges.html

Federal Tribunal uses the Victor platform to identify the most relevant appeals.[253] The AI system called "Prometea," developed in Argentina, is also used by the Colombian Constitutional court in order to identify cases that are worth a careful examination.[254] When ChatGPT was released, only a few weeks passed before a Colombian judge, Juan Manuel Padilla, made use of it to draft the motivation of his ruling, regarding an autistic child's fundamental rights to health and dignified life.[255] A few days later, a Colombian administrative judge, María Victoria Quiñones, also transcribed in her ruling the help she had received from the chatbot in order to answer technical questions about how to carry out a judicial hearing in the metaverse.[256] ChatGPT was later used by Peruvian[257] and Mexican[258] judges.

The notion of judicial series and the possibility to anticipate in a reliable way their outcome would also be especially useful to insurance companies. The legal department of major firms would also be able to anticipate the legal risk of developing a new business. Predictive policing frequently goes hand in hand with predictive justice. In Italia, KeyCrime or in Spain VeriPol and VioGén have been introduced in order to prevent crime.[259]

According to the summary Bruno Makowiecky Salles and Paulo Márcio Cruz offer,

> "From a general perspective, it can be seen that technological revolution and artificial intelligence systems have the potential to significantly transform activities such as (i) the search, location, and selection of relevant documents in lawsuits, (ii) the reading, sorting, and classification of legal pieces for the planning of work, the identification of causes of extinction of lawsuits and/ or the mass judgment of repetitive topics, (iii) legal scholarship and legislation search in general, including the various national and international sources of law, (iv) the creation of documents, (v) the production of reports and postulations or decisions, and (vii) the prediction of the results of judgments […], influencing, in this case, the decision of solving a claim in court or out of court, with more concrete standards of results for negotiation. The technology will also impact: (viii) on

[253] K. De Oliverai Veras and G. Barreto, 'A inteligência artificial no setor público: uma análise do projeto victor no poder judiciário', IX Encontro Brasileiro de Administração Pública (SBAP, 2022), available at : https://sbap.org.br/ebap-2022/665.pdf. See more generally J.C.B. Pacheco, *Possibilidades de utilização da inteligência artificial no Poder Judiciário*. (Natal, Universidade Federal do Rio Grande do Norte, 2019) ; B. Makowiecky Salles and P. Márcio Cruz, 'Jurisdiction and Artificial Intelligence: Reflections and some Applications in Brazilian Courts', *Opinión jurídica*, Vol. 21-46 (2022), pp. 1-20.

[254] See [Interview], Juan Gustavo Corvalán, 'Prometea es el primer sistema de inteligencia artificial diseñado y desarrollado por el Ministerio público fiscal de la ciudad autónoma de Buenos Aires ' (The Technolawgist, 20th June 2019), available at : https://www.thetechnolawgist.com/2019/06/20/entrevista-juan-gustavo-corvalan-buenos-aires-prometea-inteligencia-artificial/ (accesseed March 2022).

[255] See Radicado No. 13001410500420220045901, Accionante: Salvador Espitia Chávez , Accionado: Salud Total E.P.S, Sentencia No. 032, Fecha de la Providencia: 30-01-2023, available at : https://forogpp.files.wordpress.com/2023/01/sentencia-tutela-segunda-instancia-rad.-13001410500420220045901.pdf

[256] See Tribunal administrativo del Magdalena, Despacho 01, Magistrada ponente: María Victoria Quiñones Triana, Santa Marta D.T.C.H., 10-02-2023, Radicación número: 47-001-2333-000-2020-00014-00, available at : https://forogpp.files.wordpress.com/2023/02/2020-014-siett-vs-nacion-policia-nacional-solicitud-audiencia-en-el-metaverso-1.pdf ; for a criticism, see J.D. Gutiérrez, 'ChatGPT in Colombian Courts: Why we need to have a conversation about the digital literacy of the judiciary' (VerfBlog, February 2023), available at https://verfassungsblog.de/colombian-chatgpt/

[257] See Poder Judicial del Perú, Corte superior de justicia de Lima sur, Juzgado civil transitorio de San Juan de Miraflores, sede Valle Riestra, Expediente 00052-2022-18-3002-JP-FC-01, 27-03-2023, available at : https://img.lpderecho.pe/wp-content/uploads/2023/03/Expediente-00052-2022-18-3002-JP-FC-01-LPDerecho.pdf.

[258] See '*A la luz de los principios de máxima publicidad y transparencia la Sala Superior del Tribunal Electoral del Poder Judicial de la Federación realiza su Sesión Pública de resolución*' : https://www.youtube.com/watch?v=OwaZg3quyls&t=3679s ; See J.D. Gutiérrez, 'Judges and Magistrates in Peru and Mexico Have ChatGPT Fever' (TechPolicy, April 19th 2023), available at : https://techpolicy.press/judges-and-magistrates-in-peru-and-mexico-have-chatgpt-fever/

[259] See W.L. Perry et al., *Predictive Policing: The Role of Crime Forecasting in Law Enforcement Operations* (RAND Corporation, 2013) ; V. Cinelli and A. Manrique Gan, 'El uso de programas de analisis predictivo en la inteligencia policial. Una comparative europea', *Revista de estudios en seguridad internacional*, Vol. 5 (2019), pp. 1-19 ; V.C. Fluja Guzmán, 'Ideas para un debate sobre la predicción del crimen', in *Inteligencia artificial legal y administración de justicia*, S. Calaza López and M. Llorente Sánchez-Arjona (Cizur Menor: Thomson, Reuters, Aranzadi, 2022), pp. 289-338 ; European Union Agency for Fundamental Rights, 'Bias in Algorithms – Artificial Intelligence and Discrimination' (Vienna, 2022), esp. pp. 29-48.

> promotion of legal certainty and reduction of judicial discretion, by enabling a more faithful portrayal of the law; (ix) in the effectiveness of enforceable activities, such as the search for financial assets, goods for pledging and addresses; (x) on process management, automating certain parts of procedural stages; (xi) on the design of organizational policies at micro and macro levels, including the detection of hypotheses of frivolous, habitual or predatory litigation, to assist in the definition of legal coping strategies; (xii) on the easier provision of legal information, inside and outside the courts, introducing to stakeholders informal and faster ways to solve everyday problems, raising awareness of rights and dissuading false expectations; (xiii) on the opening of new forums, whether institutionalized or not, more or less formal, for the online resolution of conflicts; (xiv) in the introduction of chats for customer service; (vx) in the growth of the so-called visual law for reducing formality in legal communications through the use of graphic illustrations, QR Codes and other resources that make petitions more didactic and creative […]; (xvi) in the use of blockchain technology for filing documents and evidence; (xvii) in the consolidation of fully virtual trial sessions and court hearings and trial sessions by videoconference, which has intensified with significant results since the covid-19 pandemic period; (xviii) in the control of users with access to sensitive data or activities; (xiv) among other possibilities."[260]

72. In a way, AI and predictive justice contribute to the ideal that was Montesquieu and Beccaria's representation of judicial reasoning as a form of mechanical syllogism. A robotical judicial ruling[261] is not far from this perspective. According to Montesquieu, "the national judges are no more than the mouth that pronounces the words of the law, mere passive beings, incapable of moderating either its force or rigour."[262]

But from the constitutional viewpoint, several objections have been raised against predictive justice. Beyond the reliability of the collected data and that of the correlations that are identified by the AI, a major issue is related to the possible bias it could introduce. Depending on the data it is trained with, the AI may very well reproduce past patterns of decision, and contribute to their legitimation. Data may also be partial, outdated, or inadequate. If the past decisions with which the AI is trained or fed are biased, for example in terms of gender, race, religion, ethnicity, etc.,[263] the recommendation of the AI will tend to reproduce this bias,[264] however much it may conflict with values that are considered crucial to contemporary social conscience. The difficulty increases in the case the designer and developers of the AI are themselves biased, either willingly or unknowingly.[265] This kind of

[260] Makowiecky Salles and P. Márcio Cruz, 'Jurisdiction and Artificial Intelligence: Reflections and some Applications in Brazilian Courts', *Opinión jurídica*, Vol. 21-46 (2022), pp. 1-20, pp. 11-12.
[261] M. Luciani, 'La decisione giudiziaria robotica', *Rivista dell'Associazione italiana dei costituzionalisti*, no. 3 (2018), pp. 872-893.
[262] Montesquieu, The Spirit of Laws (1748), Book XI, Ch. 6.
[263] For concrete examples, see E. Hunt, 'Tay, Microsoft's AI Chatbot, get a crash course in racism from Twitter', *The Guardian*, (24th March 2016) ; Y. Adegoke, 'Alexa, Why does the brave new world of AI have all the sexism of the old one?', *The Guardian* (22th May 2019).
[264] Access Now, 'Human Rights in the Age of Artificial Intelligence', (November 2018), p. 18, available at : https://www.accessnow.org/wp-content/uploads/2018/11/AI-and-Human-Rights.pdf
[265] See e.g. B. Mittelstadt, P. Allo, M. Taddeo, S. Wachter and L. Floridi, 'The Ethics of Algorithms: Mapping the Debate', *Big Data & Society*, Vol. 3 (2016), available at : https://doi.org/10.1177/2053951716679679 ; F. Zuideveen Borgesius, 'Discrimination, Artificial Intelligence, and Algorithmic Decision-Making' (Strasbourg: Council of Europe, 2019) ; L. Floridi, J. Cowls, M. Beltrametti, 'AI4People. A Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations', *Minds and Machines* (2018) ; A. Jobin, M. Ienca and E. vayena, 'The Global Landscape of AI Ethics', *Nature Machine Intelligence*, Vol. 1 (2019) ; M. Ebers, 'Regulating AI and Robotics: Ethical and Legal Challenges', in *Algorithms and the Law*, M. Ebers and S.N. Navarro (Cambridge: Cambridge UP, 2019) ; M. Fierens, S. Rossello and E. Wauters, 'Setting the Scene: On AI Ethics and Regulation', in *Artificial Intelligence and the Law*, J. De Bruyne, C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 49-72, esp. pp. 51-52 ; R. E. Smith, *Rage Inside the Machine: The Prejudice of Algorithms, and How to Stop the Internet Making Bigots of Us All* (New York, Bloomsbury Business, 2019), 330 p.; M. Mann and T. Matzner, 'Challenging Algorithmic Profiling: The Limits of Data Protection and Anti-Discrimination in Responding to Emergent Discrimination', *Big Data & Society,* Vol. 6-2 (2019) ; Commission nationale informatique et libertés, *Comment permettre à l'homme de garder la main? Les enjeux éthiques des algorithmes et de l'intelligence artificielle* (December 2017), pp. 28-33, available at :

risk, which is also evident in the domains of insurance,[266] creditworthiness assessment,[267] student selection, recruitment,[268] prove real.[269] As Mark Coeckelbergh puts it, "AI algorithms are never neutral, and both the bias in society and the biases that result from the algorithms and the data science processes need to be evaluated. Similarly, […] data themselves are also not neutral, objective, or 'raw'. Instead, they are 'produced by the operations of knowledge production', involving interpretation, curation, and perception – including feelings."[270]

Due to the technological bias or automation bias,[271] people tend to trust the machine rather than themselves, so that a legitimation effect is spontaneously associated with the result recommended by the AI. This may limit the independence and impartiality of judges, and directly affect the fundamental right to fair trial. In terms of rule of law or of due process,[272] one's situation would be (at least partially) assessed and judged based not on valid law and proven facts, which are still perceived as the classical ingredients of judicial decision-making, but on a process that is opaque and not public.[273] The source of the individual decision would not be a statute, duly adopted by a democratic legislature, or a precedent, but the assessment of the past history of the legal system by an AI, without any information or, at least, without any intelligible information for the layman – and in this case, the litigant – about the collected data and the way the input is processed so as to reach the output.

For example, in the famous case *Loomis v. Wisconsin*,[274] a Wisconsin judge had sentenced Eric Loomis to six years in prison. He based his analysis on the software "Correctional Offender Management Profiling for Alternative Sanctions" (COMPAS)[275] Using a proprietary algorithm and developed by a private company, this AI tool compiles the answers to a 137-item questionnaire. It attributes a score to individuals. Loomis was classified as high-risk of re-offending. He complained his right to due process had been violated, as he could not challenge the algorithm, because it was secret, and as the AI took into account

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https://www.cnil.fr/sites/default/files/atoms/files/cnil_rapport_garder_la_main_web.pdf ; P. Boddington, *AI Ethics: A Textbook* (Springer, 2023) ; N. Turner Lee, 'Detecting Racial Bias in Algorithms and Machine Learning', *Journal of Information, Communication and Ethics in Society*, Vol. 16 (2018) ; J.M. Balkin, 'Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation', *UCDL Review* (2018) ; R. Calo, 'Privacy, Vulnerability, and Affordance', *DePaul Law Review*, Vol. 66 (2016) ; O. Pollicino and L. Somaini, 'Online Disinformation and Freedom of Expression in the Democratic Context' in *Misinformation in Referenda,* S. Boillet Baume and V. Martenet Vincent, (Abingdon, New York: Routledge, 2021) ; A. Matamoros-Fernández, 'Platformed Racism: The Mediation and Circulation of an Australian Race-Based Controversy on Twitter, Facebook and YouTube', *Information, Communication and Society*, Vol. 20-6 (2017) ; A. Duarte, 'A necessidade de uma compreensão decolonial da inteligência artificial para uma adequada regulação jurídica', in *Decolonização de conceitos sociojurídicos*, R. Coelho de Freitas (Fortaleza: Editoral Mucuripe, 2022), pp. 425-467.

[266] J. Amankwah, 'Insurance Underwriting on the Basis of Telematics: Segmentation and Profiling', in *Artificial Intelligence and the Law*, J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 405-428.

[267] J. Goetghebuer, 'Ai and Creditworthiness Assessments: The Tale of Credit Scoring and Consumer Protection. A Story with a Happy Ending?', in *Artificial Intelligence and the Law*, J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) 520 p., pp. 429-460.

[268] C. O'Neil, *Weapons of math destruction: how big data increases inequality and threatens democracy* (New York, Crown, London: Allen Lane, 2017) 275 p.

[269] See generally on sexist, racist, ageist, ableist algorithms, S.U. Noble, *Algorithms of Oppression. How Search Engines Reinforce Racism* (New York UP, 2018).

[270] M. Coeckelbergh, *The Political Philosophy of Artificial Intelligence* (Cambridge: Polity, 2022), p. 59.

[271] M. Van Der Haegen, 'Quantitative Legal Prediction: The Future of Dispute Resolution?', in *Artificial Intelligence and the Law*, J. De Bruyne, and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 73-99, p. 85; C. Kemper, 'Kafkaesque AI? Legal Decision-Making in the Era of Machine Learning', *Intellectual Property and Technology Law Journal*, Vol. 24-2 (2020), pp. 251-294, p. 289.

[272] See supra, 4.2.2.

[273] C. Coglianese and D. Lehr, 'Transparency and Algorithmic Governance', *American University Administrative Law Review*, Vol. 71 (2019), pp. 1-56.

[274] 137 S.Ct. 2290 (2017).

[275] State v. Loomis 2016 WI 68, 371 Wis. 2d 235, 881 N.W.2d 749.

criteria like gender and race. The presumption of innocence was also imperilled. The Supreme Court refused to grant certiorari.[276] The functioning of contemporary algorithms is frequently too complex to be understood, even by specialists. Because of this black box effect, it is hardly possible to connect the decision or recommendation to the reasoning from which it follows.[277] In the Netherlands, the Hague District Court adopted another position. It considered that AI mechanisms, especially SyRi, used by the administration in order to fight tax evasion or social benefits fraud violated the right to privacy protected by article 8 of the European Convention on Human Rights.[278] On 16 February 2023, the German Federal Constitutional Court declared legislation in Hesse and Hamburg regarding automated data analysis for the prevention of criminal acts unconstitutional.[279] § 25a(1) first alternative of the Security and Public Order Act for the Land Hesse (Hessisches Gesetz über die öffentliche Sicherheit und Ordnung – HSOG) and § 49(1) first alternative of the Act on Data Processing by the Police for the Land Hamburg (Hamburgisches Gesetz über die Datenverarbeitung der Polizei – HmbPolDVG) respectively authorise the police to process stored personal data through automated data analysis or automated data interpretation. According to the First Senate of the Court, they violate the general right of personality (Art. 2(1) in conjunction with Art. 1(1) of the Basic Law), from which a right to informational self-determination results.

Moreover, one may fear that the use of AI leads to a form of conservatism. Past decisions are collected and processed by the AI. It predicts a result that tends to replicate the dominant pattern of decision-making. If judges pay attention to it and trust it, they necessarily reproduce and reinforce this pattern. New uses of AI for the same kind of issue will as a consequence tend to recommend a solution with a higher probability, thus leading judges to follow this pattern all the more willingly. This tends to limit judicial creativity, and to exclude the possibility of a fresh analysis of the case a court has to decide, and especially the possibility of overruling a precedent, however much new social conditions may recommend it. Antoine Garapon and Jean Lassègue for example underline the inbuilt conservative bias of predictive justice.[280] Moreover, one has to wonder how a change in legislation can be accommodated into the data processed by the AI, and whether it can counterbalance a long series of past cases enforcing the pre-existing legislation.[281]

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[276] See e.g. J. Larson, S. Mattu, L. Kirchner and J. Angwin, 'How We Analyzed the COMPAS Recidivism Algorithm' (ProPublica, 23rd May 2016), available at : https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm ; C. Kemper, 'Kafkaesque AI? Legal Decision-Making in the Era of Machine Learning', *Intellectual Property and Technology Law Journal*, Vol. 24-2 (2020), pp. 251-294, pp. 281-284; J. Dressel and H. Farid, 'The Accuracy, Fairness, and Limits of Predicting Recidivism', *Science Advances*, Vol. 4 (2018), available at : https://www.science.org/doi/10.1126/sciadv.aao5580 ; S. Greenstein, 'Preserving the Rule of Law in the Era of Artificial Intelligence', *Artificial Intelligence and Law*, Vol. 30, (July 2021), available at : https://link.springer.com/content/pdf/10.1007/s10506-021-09294-4.pdf

[277] Access Now, 'Human Rights in the Age of Artificial Intelligence', (November 2018), p. 18, available at : https://www.accessnow.org/wp-content/uploads/2018/11/AI-and-Human-Rights.pdf

[278] Rechtbank Den Haag, 5-02-2020, SyRI, ECLI:NL:RBDHA:2020:865. See J. Gesley, 'Netherlands : Court Prohibits Government's Use of AI Software to Detect Welfare Fraud', *Global Legal Monitor* (13th May 2020) ; G. Lazcoz Moratinos and J.A. Castillo Parrilla, 'Valoracion algorítmica ante los derechos humanos y el Reglamento general de protección de datos: el caso SyRI', *Revista chilena de derecho y tecnología*, Vol. 9 (2020), pp. 207-225 ; G. González Fuster, *L'intelligence artificielle et son utilisation par les services répressifs, incidences sur les droits fondamentaux: synthèse* (Luxembourg : Publications Office, 2020).

[279] 1 BvR 1547/19, 1 BvR 2634/20 (2023).

[280] A. Garapon and J. Lassègue, *Justice digitale. Révolution graphique et rupture anthropologique* (Paris : PUF, 2018) pp. 238-239.

[281] M. Van Der Haegen, 'Quantitative Legal Prediction: The Future of Dispute Resolution?', in *Artificial Intelligence and the Law*, J. De Bruyne, and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 73-99, p. 84.

73. From the perspective of political autonomy, rational and conscious obedience to authority are made impossible. Moreover, criticism, for example in the form of an appeal to a superior court or of political resistance, is also practically as well as conceptually ruled out, as there is hardly any means to articulate a convincing series of arguments against a process that is totally opaque. The dimension of objectivity and necessity which diffuses through the normativity of the AI destroys several of the most fundamental building blocks of contemporary political culture. It also establishes a form of delegation of power from the human judge to the machine.

This general lack of transparency as well as possible unexplicit ignorance of fundamental constitutional values directly conflicts with widely received views about the legitimacy of a legal system, as they were for example expressed by Lon L. Fuller in *The Morality of Law*.[282] In this classical book, he listed eight principles. Legal rules must be (1) sufficiently general, (2) publicly promulgated, (3) prospective, (4) at least minimally clear and intelligible, (5) free of contradictions, (6) relatively constant, (7) possible to obey, and (8) administered in a way that does not wildly diverge from their obvious or apparent meaning. Obviously, all these requirements are not met by algorithmic governance. As it is used in the judicial sphere, AI imperils many elements of the right to fair trial, such as the principle of contradiction, equality of arms, principle of legality, presumption of innocence, right to avoid self-incrimination, and the right to an individual and motivated ruling.[283] An "algorithmic rule of law" still has to be invented.[284]

In order to confront the difficulties that AI poses, several actors and institutions have tried to develop strategies to help develop a more ethical AI. Jessica Fjeld, Nele Achten, Hannah Hilligoss, Adam Christopher Nagy, and Madhulika Srikumar have identified an emerging "Consensus in Ethical and Rights-based Approaches to Principles for AI." They insist on features such as transparency (effort to increase explainability, interpretability, communication and disclosure); justice and fairness (prevention of bias and discrimination); non-maleficence (AI should cause no harm); responsibility (attribution of responsibility, liability); privacy (data protection and security); beneficence; freedom and autonomy; trust (trustworthy AI technology, research and development); dignity; sustainability (protecting the environment, ecosystem, biodiversity, fair and equal society, peace) and solidarity (especially impact on employment).[285] These eleven principles lend themselves to several interpretations, and need to be articulated with each other. But they offer robust guidelines

[282] L.L. Fuller, *The Morality of Law* (New Haven, London: Yale UP, 1969), pp. 33-94.
[283] V. Faggiani, 'El derecho a un proceso con todas las garantías ante los cambios de paradigma de la inteligencia artificial', *Teoría y realidad constitucional*, no. 50 (2022), pp. 517-546.
[284] M. Barrio Andrés, 'Retos y desafíos del Estado algorítmico de derecho' (Analisis del Real instituto Elcano, 9th June 2020), available at : https://www.realinstitutoelcano.org/analisis/retos-y-desafios-del-estado-algoritmico-de-derecho/
[285] J. Fjeld et al., 'Principled Artificial Intelligence: Mapping Consensus in Ethical and Rights-based Approaches to Principles for AI', *Berkman Klein Center Research Publication*, No. 220-1, (2020), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3518482

to improve the sensitivity of AI to constitutional values.[286] The European Commission for the Efficiency of Justice (CEPEJ) more specifically adopted a European Ethical Charter on the use of Artificial Intelligence in judicial systems and their environment.[287] In order to remedy the bias resulting from the fact that code is frequently written by white Western men, several programs have already been designed to embody alternative values of legitimacy, for example taking into account feminist perspectives and non-Western cultures.[288]

These preoccupations are of course not limited to predictive justice. "Because human rights are interdependent and interrelated, AI affects nearly every […] recognized human right. […] The human rights issues […] are not necessarily unique to AI. Many already exist within the digital rights space, but the ability of AI to identify, classify, and discriminate magnifies the potential for human rights abuses in both scale and scope."[289] They apply widely to any private or public use of artificial intelligence. The concern they raise in terms of AI ethics[290] nevertheless has special relevance in the judicial sphere as, in the contemporary constitutional framework, the judiciary is presented as the ultimate decision-maker to solve conflicts in our societies.

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[286] See also European Parliament, 'Artificial Intelligence and Law Enforcement. Impact on Fundamental Rights' (July 2020), available at : https://www.europarl.europa.eu/RegData/etudes/STUD/2020/656295/IPOL_STU(2020)656295_EN.pdf ; Ministère des solidarités et de la santé, 'Recommandations de bonnes pratiques pour intégrer l'éthique dès le développement des solutions d'Intelligence Artificielle en Santé : mise en œuvre de « l'éthique by design »' (April 2022), available at : https://esante.gouv.fr/sites/default/files/media_entity/documents/ethic_by_design_guide_vf.pdf ; High-Level Expert Group on Artificial intelligence, 'Policy and Investment Recommendations for Trustworthy AI', (June 2019), available at : https://www.europarl.europa.eu/italy/resource/static/files/import/intelligenza_artificiale_30_aprile/ai-hleg_policy-and-investment-recommendations.pdf ; Access Now, 'Human Rights in the Age of Artificial Intelligence', (November 2018), p. 18, available at : https://www.accessnow.org/wp-content/uploads/2018/11/AI-and-Human-Rights.pdf ; Fairness, Accountability and Transparency in Machine Learning Initiative, see www.fatml.org ; Toronto Declaration Protecting the right to Equality and Non-discrimination in Machine Learning Sytems (2018), available at : https://www.torontodeclaration.org/declaration-text/english/ ; High-Level Expert Group on Artificial intelligence, *Ethics Guidelines for Trustworthy AI* (April 2019), available at : https://op.europa.eu/en/publication-detail/-/publication/d3988569-0434-11ea-8c1f-01aa75ed71a1; C. Kemper, 'Kafkaesque AI? Legal Decision-Making in the Era of Machine Learning', *Intellectual Property and Technology Law Journal*, Vol. 24-2 (2020), pp. 251-294; C. Daelman, 'AI Through a Human Rights Lens. The Role of Human Rights in Fulfilling AI's Potential', in *Artificial Intelligence and the Law*, J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 123-149 ; C. Villani, *Donner un sens à l'intelligence artificielle. Pour une stratégie nationale et européenne, Mission confiée par le Premier Ministre* (March 2018), available at : https://www.vie-publique.fr/sites/default/files/rapport/pdf/184000159.pdf ;B. Mittelstadt, P. Allo, M. Taddeo, S. Wachter and L. Floridi, 'The Ethics of Algorithms: Mapping the Debate', *Big Data & Society*, Vol. 3 (2016), available at : https://doi.org/10.1177/2053951716679679 ; European Union Agency for Fundamental Rights, 'Bias In Algorithms. Artificial Intelligence And Discrimination' (Vienna, 2022), available at : https://fra.europa.eu/en/publication/2022/bias-algorithm ; Internet Rights & Principles Coalition, Charter of human rights and principles for the internet (2022), available at : https://drive.google.com/file/d/1Hgsgl1-Irxe_3angb8GJoIdlK9nScaEi/view ; A. Daly al., 'AI, Governance and Ethics. Global Perspectives', in *Constitutional Challenges in the Algorithmic Society*, Hans-W. Micklitz, Oreste Pollicino et al. (Cambridge: Cambridge UP, 2021), pp. 182-201 ; Datenethikkommission der Bundesregierung, *Gutachten der Datenethikkommission der Budesregierung (*2019), available at : https://www.bmi.bund.de/SharedDocs/downloads/DE/publikationen/themen/it-digitalpolitik/gutachten-datenethikkommission.html ; A. Winfield, 'Overview of codes of ethics for AI : A Round Up of Robotics and AI Ethics' (Alan Winfield's Web Log, 2017), available at : http//alanwinfield.blogspot.com/2017/12/a-round-up-of robotics-and-ai-ethics.html ; Commission nationale consultative des droits de l'homme, Avis relative à l'impact de l'intelligence artificielle sur les droits fondamentaux (April 2022), available at : https://www.cncdh.fr/sites/default/files/a_-_2022_-_6_-_intelligence_artificielle_et_droits_fondamentaux_avril_2022.pdf. See also : A. Mantelero, *Beyond Data. Human Rights, Ethical and Social Impact Assessment in AI* (The Hague: T.M.C. Asser Press ; Berlin, Heidelberg : Springer-Verlag, 2022) ; European Union Agency for Fundamental Rights, 'Bias in Algorithms – Artificial Intelligence and Discrimination' (Vienna, 2022) ; P. Boddington, *AI Ethics: A Textbook* (Springer, 2023).

[287] European ethical Charter on the use of Artificial Intelligence in judicial systems and their environment (European Commission for the Effeciency of Justice, 2018), available at : https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c

[288] L. Diver, *Digisprudence. Code as Law Rebooted* (Edinburgh : Edinburgh University Press, 2022), p. 221.

[289] Access Now, 'Human Rights in the Age of Artificial Intelligence', (November 2018), p. 18, available at : https://www.accessnow.org/wp-content/uploads/2018/11/AI-and-Human-Rights.pdf

[290] See e.g., for general presentations, A. Kiyindou, E. Damome and N. Akam, *L'intelligence artificielle. Questions éthiques et enjeux socioéconomiques*, préf. Jean-Michel Besnier (Paris: L'Harmattan, 2022) ; A. Matelero, *Beyond Data. Human Rights, Ethical and Social Impact Assessment in AI* (Springer, 2022).

5.1.1.2. The executive

74. The second branch of Montesquieu's trichotomy is the executive, or the administrative, power. It has been impacted by new technologies even more deeply than the judiciary.[291]

According to Cary Coglianese, AI helps administrative rule making from the demand as well as from the supply side. The public can for example access a proposed rule and comment on it, thus participating in its drafting. The administration can use software to extract and isolate relevant data for rulemaking; organise and summarise public comments, process public input and refine its own draft. Once the draft is ready, digital juries can discuss the new rule and offer feedback. Such an interactive and deliberative process contributes to the production of better informed and better understood rules, thus easing compliance.[292]

Not all states are ready to implement AI in the delivery of public services to their citizens to the same degree.[293] Vast programs of digitalisation have been imagined by the states to improve the functioning of their own organs, to make it more efficient and cheaper, as well as to improve the service offered to the citizens. Official websites giving information and offering services have been developed. Assisted decision-making has already been mentioned as one of the major sites where issues of due process abound.[294] Depending on the local choices, algorithms have been employed in the administration of social benefits, unemployment, taxation, patent, public safety, or health.[295] Some states have limited the

[291] S. de la Sierra, 'La matematización de la realidad y del Derecho Público' (14th March 2022), available at : https://www.ibericonnect.blog/2022/03/la-matematizacion-de-la-realidad-y-del-derecho-publico/?utm_source=mailpoet&utm_medium=email&utm_campaign=newsletter-post-title_361 ; R. Richardson, J.M. Schultz and V.M. Southerland, 'Litigating Algorithms 2019 US Report: New Challenges to Government Use of Algorithmic Decision Systems', (AI Now Institute, 17th September 2019), available at : https://ainowinstitute.org/publication/litigating-algorithms-2019-u-s-report-2 ; G. Rouet, *Algorithmes et décisions publiques* (Paris : CNRS éditions, 2019) ; A. Cerrillo Martinez, *La transformacion digital de la administracion local* (Madrid : Fundacion Democracia y gobierno local, col. Claves, 33, 2021) ; J. Duberry, *Artificial Intelligence and Democracy. Risks and Promises of AI-Mediated Citizen–Government Relations* (Cheltenham: Edward Elgar, 2022) ; Conseil d'Etat, 'Intelligence artificielle et action publique : construire la confiance, servir la performance' (2022), available at: https://www.conseil-etat.fr/publications-colloques/etudes/intelligence-artificielle-et-action-publique-construire-la-confiance-servir-la-performance ; Aa. Vv., 'Amministrazione 5.0', *Rivista di digital politics* (2022), available at : https://www.digitalpolitics.it/numeri/#focus2f77-dbb7; S. Demková, *Automated Decision-Making and Effective Remedies: The New Dynamics in the Protection of EU Fundamental Rights in the Area of Freedom, Security and Justice* (Cheltenham: Edward Elgar, 2023) ; K. Yeung and M. Lodge, *Algorithmic Regulation* (Oxford University Press, 2019) ; R. Cavallo Perin and D.-U. Galetta, *Il diritto dell'amministrazione pubblica digitale* (G.Giappichelli editore, 2020) ; J. Bousquet, T. Carrère and S. Hammoudi, *L'action publique algorithmique : risques et perspectives* (Mare & Martin, 2023) ; L. Cluzel-Métayer, C. Prébissy-Schnall and A. Sée, *La transformation numérique du service public : une nouvelle crise ?* (Mare & Martin, 2021) ; D. Valle-Cruz, N. Plata-Cesar and J. Leonardo González-Ruíz, *Handbook of Research on Applied Artificial Intelligence and Robotics for Government Processes* (IGI Global, 2023) ; on the Danish experience with digital administration, see H.M. Motzfeldt, 'Transformation : Automated Decisions and Decision Support Based on Machine Learning' in *Public Law: Insights into Danish Constitutional and Administrative Law Public Administration*, P.A. Nielsen, J. Olsen and H. R. Forlag (2022), pp. 445-462 ; H.M. Motzfeldt, 'Public digitalisation in Denmark', in *Public Law: Insights into Danish Constitutional and Administrative Law*, P. A. Nielsen, J. Olsen and H. R. Forlag, (2022), pp. 113-128.

[292] C. Coglianese, *E-rulemaking: Information Technology and the Regulatory Process: New Directions in Digital Government Research*, (Faculty Scholarship at Penn Law, 2004), available at : https://scholarship.law.upenn.edu/faculty_scholarship/2633/

[293] A. Rogerson, E. Hankins, P. Fuentes Nettel and S. Rahim, *Government AI Readiness Index 2022* (Oxford Insights, 2022), available at : https://static1.squarespace.com/static/58b2e92c1e5b6c828058484e/t/639b495cc6b59c620c3ecde5/1671121299433/Government_AI_Readiness_2022_FV.pdf

[294] See supra, 2.2.

[295] S. Desmoulin-Canselier and D. Le Métayer, *Décider avec les algorithmes. Quelle place pour l'Homme, quelle place pour le droit?*, coll. Les Sens du droit, (Paris : Dalloz, 2020), p. 23 ; D. Bourcier and P. De Filippi, 'Transparence des algorithmes face à l'open data : quel statut pour les données d'apprentissage?', *Revue française d'administration* publique (2018) ; C. Coglianese and L.M. Ben Dor, *AI in Adjudication and Administratio*, (Faculty Scholarship at Penn Law, 2020), p. 20-25 ; T. Vázquiez Rojas, 'Projet de recherche Algorithmes et administration publique – rapport sur l'inventaire d'outils', document de travail no. 29, (Laboratoire de cyberjustice, 2021), p. 5 ; W. Guay, 'Intelligence artificielle et application non contentieuse du droit : une réactualisation du problème du design institutionnel de Lon L. Fuller', *Communitas*, Vol. 3 (2022), pp. 1-36.

possibility for individual decision-making based on AI. Others have tried to secure some space for an individual appreciation of one's situations. Applying the principle "human in the loop",[296] others try to secure a right to appeal to a human being in order to review the decision made by an AI, or a right to an explanation. Such is the ambition of "XAI", i.e. explainable artificial intelligence.[297]

In the Tallinn Declaration on eGovernment, the members of the European Union and the members of the European Free Trade Area, in order to

> "bring to life the principles of the EU eGovernment Action Plan, we will in the next five years (2018-2022) [committed to] take steps towards the following objectives in our public administrations:
>
> •For the principles of digital-by-default, inclusiveness and accessibility, we will:
>
> o ensure that European citizens and businesses may interact digitally with public administration, if they choose to do so and whenever feasible and appropriate from a cost-benefit and user-centricity perspective;
> o work to ensure the consistent quality of user experience in digital public services as set out in the Annex "User-centricity principles for design and delivery of digital public services" of this declaration;
> o work to increase the readiness of European citizens and businesses to interact digitally with the public administrations;
>
> •For the principle of once only, we will work to implement it for key public services, at least as an option for citizens and businesses;
>
> •For the principle of trustworthiness and security, we will:
>
> o ensure that information security and privacy needs are taken into consideration when designing public services and public administration information and communication technology (ICT) solutions, following a risk-based approach and using state-of-the-art solutions;
> o work to increase the uptake of national eID schemes, including to make them more user-friendly and especially more suitable for mobile platforms, while ensuring their appropriate security levels;
>
> •For the principle of openness and transparency, we will make it possible for citizens and businesses to better manage (e.g. access, check and inquire about the use of, submit corrections to, authorise (re)use of) their personal data held by public administrations, at least in base registries and/or similar databases where feasible;

[296] See e.g. M. L. Jones, 'Right to a Human in the Loop: Political Constructions of Computer Automation and Personhood, *Social Studies of Science*, (2017) ; Commission nationale informatique et libertés, *Comment permettre à l'homme de garder la main? Les enjeux éthiques des algorithmes et de l'intelligence artificielle* (December 2017), available at : https://www.cnil.fr/sites/default/files/atoms/files/cnil_rapport_garder_la_main_web.pdf ; G. Lazcoz and P. de Hert, 'Humans in the GDPR and AIA Governance of Automated and Algorithmic Systems. Essential Pre-requisites Against Abdicating Responsibilities', *Computer Law & Security Review*, Vol. 50 (2023).

[297] D. Gunning, *Explainable Artificial Intelligence*, DARPA/I20, (2016) ; B. Mittelstadt, C. Russell, and S. Wachter 'Explaining Explanations in AI' (2018), available at : https://arxiv.org/abs/1811.01439 ; M. Kaminski, 'The Right to Explanation, Explained', *Berkeley Technology Law Journal*, Vol. 34-1, (2019), p. 189 ; A.B. Arrieta et al., *Explainable Artificial Intelligence (XAI): Concepts, Taxonomies, Opportunities and Challenges toward Responsible AI* (2019), available at : https://arxiv.org/abs/1910.10045 ; S. Wachter et al., 'Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation', *International Data Privacy Law*, Vol. 7, Issue 2, (May 2017) ; G. Malgieri and G. Comande´, 'Why a Right to Legibility of Automated Decision-Making Exists in the General Data Protection Regulation', *International Data Privacy Law*, Vol. 7 (2017) ; B. Goodman and S. Flaxman, 'European Union Regulations on Algorithmic Decision-Making and a "Right to Explanation"', *AI Magazine*, Vol. 38-3 (2017) ; L. Cotino Hueso and J. Castellanos Claramut,*Transparencia y explicabilidad de la Inteligencia Artificial* (Tirant lo Blanch : 2023).

> •For the principle of interoperability by default, we will work on national interoperability frameworks based on the European Interoperability Framework (EIF), while respecting also the relevant national standards, and adhere to EIF for cross-border digital public services."[298]

Like in other fields of application, the digital is as full of potentialities as of perils for basic liberties.[299]

5.1.1.3. The legislative

75. The most important power Montesquieu identified was the legislative. Legislation, understood as the democratic production of general norms by the representatives of the people, is challenged on various accounts by the digital environment.

Although not exactly identical to it, the first is related to the already mentioned specific conformation of digital normativity.[300] AI reinforces the idea that "code is law." It does not seem to leave anything to the *Sollen*. Everything seems to be known, objectivated, and foreseen. AI seems to uncover normativities that are natural, immanent to society itself. Data mining results in the production of forms of knowledge that seem to have no author, without apparent designed human intervention. It works starting from unselected, heterogeneous, information, and apparently identifies the implicit rationality that supported it. The practical rationality that emerges seems directly to come from society itself, in real time. It is absolutely objective, so that it admits no criticism, and does not leave any possibility for imagining divergent behaviour.[301] As a consequence, the intervention of a human legislator appears pointless.

76. The second issue is related to the potential for artificial intelligence-based legislation.[302] AI has made speech synthesis possible. Everyone is familiar with her email provider or her smartphone anticipating the end of a sentence she begins to write. AI can invent stories and music. Chatbots can interact with human beings in a way that easily meets the Turing test.[303] AI has even been able to synthesise a credible eighth proposition to Ludwig Wittgenstein's *Tractatus logico-philosophicus* de Wittgenstein: "Die Wahreit is eine Form der

[298] Tallinn Declaration on eGovernment at the ministerial meeting during adopted by the members of the European Union and the members of the European Free Trade Area (2017), available at : https://digital-strategy.ec.europa.eu/en/news/ministerial-declaration-egovernment-tallinn-declaration

[299] See e.g. Aa. Vv. 'La gouvernance algorithmique', *Ethique publique*, Vol. 23-2 (2021) ; F. Pasquale, 'Inalienable Due Process in an Age of AI: Limiting the Contractual Creeop toward Automated Adjudication', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino et al. (Cambridge: Cambridge UP, 2021), pp. 42-56, p. 42 ; V. Eubanks, *Automating Inequality: How High-tech Tools Profile, Police, and Punish the Poor* (New York, Picador: St. Martin's Press, 2019).

[300] See supra, 2.10 and 5.1.2.

[301] A. Rouvroy and T. Berns, 'Gouvernementalité algorithmique et perspectives d'émancipation. Le disparate comme condition d'individuation par la relation', *Réseaux*, no. 177 (2013), pp. 163-196. ; A. Rouvroy, ' « Des données et des hommes ». Droits et libertés fondamentaux dans un monde de données massives", *T-PD-BUR(2015)09REV* (Council of Europe, 2016), p. 11,, available at : https://rm.coe.int/16806b1659

[302] A. Flückiger, 'L'impact de l'intelligence artificielle sur l'écriture des lois: du code de lois à la loi encodée', *LeGes*, Vol. 30, (2019), pp. 1-10 ; M. Waddington, 'Machine-consumable legislation: A legislative drafter's perspective – human v artificial intelligence', *The Loophole Journal of Commonwealth Association of Legislative Counsel*, Vol. 21 (2019).

[303] R. Devillé, N. Sergeyssels and C. Middag, 'Basic Concepts of AI for Legal Scholars', in *Artificial Intelligence and the Law,* J. De Bruyne, C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 1-22, pp. 13-14, p. 19.

Schönheit."[304] Drafting a piece of legislation, such as a provision of the French Code de la fonction publique, Code de l'aviation civile, or Code general des impôts, cannot be much more difficult. As has been proved and explained during a seminar at the Cour de cassation in September 2022 – i.e. long ago by technological standards, and more recently by a Californian Republican Representative,[305] it is perfectly possible to imagine feeding a machine with a nation's codes, so that the machine would be able to respond to a public policy problem with a text drafted in the form of articles, according to the model received in this State. It would simultaneously adapt the other pieces of legislation that have to be coordinated with the first. It would identify contradictions with other texts, manage conflicts of law over time, and identify possible conflicts of norms in advance. The stakes are not small: AI could provide a remedy for the endemic problem of the quality of the law, regularly denounced for example in France from all sides, notably by reports from the Conseil d'Etat.[306] Parliamentarians themselves are tired of having to adopt texts in a hurry, the legislator now being called to order by the Conseil constitutionnel on the subject of the clarity, intelligibility, and normativity of the law.[307] AI could also help to identify data that would make the assessment of the impact of the norm easier and more precise, so that legislative decisions would be more efficient and more adapted to their goasl. AI could thus help citizens to better know and understand this law, which they are supposed not to ignore. Better drafting could also make the law more effective downstream, if it has a better grasp of the issues at stake upstream. In France, ChatGPT was used by some deputies either to draft legislative amendments or to draft questions to the government. Functions of legislation as well as control are thus impacted by new technologies.[308]

Integrating new technologies, and especially AI in the legislative process would totally disrupt (or will totally disrupt – or has totally disrupted) the current fabric of the will of the state. One still has to wonder the level of delegation that political authorities accept. Must the AI simply assist in the decision process? Must it totally replace human agency for very technical issues? Must the perspective of a neo-Leibnizian political "calculemus!" be radically excluded in order to preserve the human part of democratic politics, this imperfection being integral to the very project of political autonomy?

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[304] Translation : "Truth is a form of beauty". See M. Braun, 'I Made an AI Read Wittgenstein, Then Told It to Play Philosopher'(Towards Data Science, January 2022), available at : https://towardsdatascience.com/i-made-an-ai-read-wittgenstein-then-told-it-to-play-philosopher-ac730298098

[305] K. Santaliz and J. Tsirkin, 'AI wrote a bill to regulate AI. Now Rep. Ted Lieu wants Congress to pass it' (NBC News, 26 January 2023), avalaible at : https://www.nbcnews.com/politics/congress/ted-lieu-artificial-intelligence-bill-congress-chatgpt-rcna67752

[306] Conseil d'Etat, 'De la sécurité juridique', Rapport public annuel 1991 (Paris : La documentation française, 1991) ; Conseil d'Etat, 'Sécurité juridique et complexité du droit' (2006), available at : https://medias.vie-publique.fr/data_storage_s3/rapport/pdf/064000245.pdf ; Conseil d'Etat, Simplification et qualité du droit (2016), available at : https://www.conseil-etat.fr/publications-colloques/etudes/simplification-et-qualite-du-droit

[307] See e.g. V. Champeil-Desplats, 'Les nouveaux commandements du contrôle de la production législative', *Mélanges en l'honneur de Michel Troper*, (Paris : Economica, 2006), pp. 267-280 ; V. Champeil-Desplats, 'N'est pas normatif qui peut. L'exigence de normativité dans la jurisprudence du Conseil constitutionnel', *Cahiers du Conseil constitutionnel*, n° 21 (2007).

[308] L. Cometti, ' « J'ai demandé à ChatGPT de rédiger un amendement » : comment l'intelligence artificielle s'invite à l'Assemblée nationale' (France Infos, 30 June 2023), available at : https://www.francetvinfo.fr/internet/intelligence-artificielle/j-ai-demande-a-chatgpt-de-rediger-un-amendement-comment-l-intelligence-artificielle-s-invite-a-l-assemblee-nationale_5903954.html#xtor=CS2-765-[autres]-

77. The third and last change that may debase the traditional understanding of legislation as what Article 6 of the Declaration of the Rights of Man and Citizen presents in a Rousseauist perspective as the "expression of the general will," is related to the possibility to dispense with generality and abstraction. The endpoint of AI is to make possible the creation of tailored norms. These would perfectly adapt to the individual specificities of every concrete situation. They would also adapt to the smallest changes in the empirical environment.[309]

According to Tim O'Reilly,[310] algorithmic regulation is indeed possible. Giovanni de Gregorio confirms the normative power of artificial intelligence.[311] For example, the Internet of things, as well as the vast amount of data about everyone's location, health, current drunkenness, current tiredness, past behaviour, the situation of the car traffic, the kind of car one drives, the quality of the tires, the quality of the road, the rainy or sunny weather, etc., make it possible for an AI to know each driver very precisely and to address to each one very specific individual directives. General legislation could be replaced by micro-directives, i.e. personalised, situated norms, which can indefinitely adapt in space and time. "Dynamic rules" are programmed to change depending on the circumstances of their application, without any new intervention of the lawgiver. According to John O. McGinnis and Steven Wasick,

> "Dynamic rules are rules that automatically change without intervention by the rule giver according to changes in future conditions that the rule itself comprehensively and accurately fixes. As computation increases, it becomes easier to add complex conditions, both because these conditions can be continually monitored and because the application of the new rule can be more readily calculated. In theory, rules could also be changed by legislatures or regulatory bodies in response to new information. In practice, however, rules tend to be sticky even in the face of changing circumstances that should modify them. Legislatures tend to be reactive to crises and thus may not update rules continuously as new information becomes available. The legislatures' crowded agendas often make it difficult to find time to update rules. Finally, legislatures contain many veto points in the forms of committees and their chairpersons as well as legislative procedures, such as filibusters, that can easily lead to gridlock and inertia."[312]

The algorithm could adapt the rules by being constantly fed with new empirical data. The same authors provide a real example:

> "Congestion price is yet another example of a dynamic rule. Congestion pricing is a method of charging motorists a price to drive or park on a road that varies depending on how busy the road typically is at certain times. The most technologically interesting congestion pricing system currently being used is San Francisco's SFpark parking meter system. The system uses sensors placed underneath parking spots to determine congestion for each block and for each hour of the day. Each month, an algorithm dynamically adjusts the price, raising prices in busy areas to reach a level that leaves at least one space open, and lowering prices in empty areas until those spaces begin to fill."[313]

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[309] A. Garapon and J. Lassègue, *Justice digitale. Révolution graphique et rupture anthropologique* (Paris : PUF, 2018) pp. 245-267 ; A. Rouvroy, ' « Des données et des hommes ». Droits et libertés fondamentaux dans un monde de données massives", *T-PD-BUR(2015)09REV* (Council of Europe, 2016), pp. 15-19,, available at : https://rm.coe.int/16806b1659

[310] T. O'Reilly, 'Open Data and Algorithmic Regulation', in *Beyond Transparency. OpenData and the Future of Civic Innovation*, B. Goldstein (San Francisco: Code for America, 2013), pp. 289-301.

[311] G. de Gregorio, 'The Normative Power of Artificial Intelligence', Indiana Journal of Global Legal Studies, Vol. 55 (2023), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4436287

[312] J.O. McGinnis and Steven Wasick, 'Law's Algorithm', *Florida LR*, Vol. 66 (2015), pp. 991-1050, p. 1039.

[313] J.O. McGinnis and Steven Wasick, 'Law's Algorithm', *Florida LR*, Vol. 66 (2015), pp. 991-1050, p. 1045.

In this case, more than wondering whether algorithms make the law,[314] as Antoine Garapon and Jean Lassègue put it, "law [simply] disappears."[315] The digital environment thus directly challenges our traditional understanding of very basic notions of contemporary constitutional practice. Not only does the digital environment challenge the current conformation of the three powers that constitutionalism tends to separate: as private powers emerge, it sometimes leads to a total dissolution of the very separation between these three functions.

5.1.2. The dissolution of the separation of powers in the digital environment: digital despotism?

78. Beyond the impact the digital environment and digital actors have on the traditional understanding of the state's functions, several authors more fundamentally wonder whether checks and balances are even possible in this space.[316] The way platforms operate, for example, raises serious doubts as to the very possibility of meeting this fundamental principle of modern constitutionalism.

The terms of service the platforms establish are accepted by users in order to be granted access to the service they provide. But it is obvious that these are "contrats d'adhésion," where the weakest party – the user/consumer – faces a very uneasy alternative. She can simply accept the proposed terms or renounce benefitting from a service that has become crucial to almost everyone's everyday life. The simplistic motto "Take it or leave it" does not truly account for the dilemma that any potential user actually faces. Moreover, the Terms of service are frequently presented in such a way as to make their exhaustive reading and analysis very unlikely for the vast majority of users. As a consequence, although they are facially contractual documents, they contain a strong dimension of unilateralism, which allows one to compare them with a form of legislation.

Thanks to these norms, each platform establishes the rules that apply to the environment it creates. It also directly executes them by providing for the detailed normative and technical arrangements that allow it to enforce the clauses that have been accepted by the users. This is most of all visible in the policy of moderating online content. The platform's very wide autonomy in this respect is generally constitutionally protected by its right to free speech.[317] Contract law and property law complete the legal support for this power. The terms of service shape the kind and the scope of the unilateral and almost discretionary power that is thus conferred on private actors because of the constitutional limitation on public powers.[318] It is not simply a contract, but an instrument of governance for the social

[314] A. Jean, *Les algorithmes font-ils la loi?* (Paris : Le livre de poche, 2023).
[315] A. Garapon and J. Lassègue, *Justice digitale. Révolution graphique et rupture anthropologique* (Paris : PUF, 2018), pp. 245-267.
[316] L. Lessig, *Code. Version 2.0* (New York: Basic Books, 2006) p. 7.
[317] See supra, 3.3.1.
[318] G. de Gregorio,' From Constitutional Freedoms to the Power of Platforms: Protecting Fundamental Rights Online in the Algorithmic Society', *European Journal of Legal Studies* (2018), § 4, avalaible at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3365106 ; G. de Gregorio, 'The Rise of Digital Constitutionalism in the European Union', *International Journal of Constitutional Law*, Vol. 19 (2021) pp. 41-70 ; N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019) pp. 105-114.

interaction space they design.[319] These media companies turn out to be "governance structures,"[320] to the point of being "special-purpose sovereigns."[321] Contrary to a widely held view, the process by which these social environments are created through the "code" is in fact much centralised.[322] As Paul Nemitz notices,

> "The Internet giants are the single group of corporations in history which have managed to keep their output largely unregulated, to dominate markets and be most profitable at the top of the stock exchange, to command important influence on public opinions and politics, and at the same time stay largely popular with the general public. It is this context of a unique concentration of power, the experience with the absence of regulation for software and Internet-based services and the history of technology regulation by law which must inform the present debate about ethics and law for AI, together with the potential capabilities and impacts of this new technology."[323]

This is the reason why "The new frontier of digital constitutionalism is precisely to deal with this new challenge of the rise of private powers."[324] In this respect, Mark Zuckerberg explicitly admitted it in February 2009, saying that "More than 175 million people use Facebook. If it were a country, it would be the sixth most populated country in the world. Our terms aren't just a document that protects our rights; it's the governing document for how the service is used by everyone across the world." As Nicholas Suzor remarks,

> "Zuckerberg's proclamation recognizes a truth the law does not: contractual terms of service do play an important role in governance. They are constitutional documents in that they form an integral component of the ways in which our shared social spaces are constituted and governed. Generally speaking the Terms of Service documents that structure the online social spaces we inhabit allocate a great deal of power to the operators."[325]

Similarly, Celeste notices that Facebook's Terms of Services, as well as those of other platforms, "list a decalogue of 'rights' and 'freedoms' [and adopt] a 'constitutional tone'."[326]

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[319] G. de Gregorio, *Digital Constitutionalism in Europe. Reframing Rights and Powers in the Algorithmic Society* (Cambridge: Cambridge UP, 2022), pp. 112-120; G. de Gregorio, 'The Rise of Digital Constitutionalism in the European Union', *International Journal of Constitutional Law*, Vol. 19 (2021), pp. 41-70, esp. pp. 56-57; N. P. Suzor, 'Digital Constitutionalism: Using the Rule of Law to Evaluate the Legitimacy of Governance by Platforms', *Social Media + Society*, no. 4-3 (2018), pp. 1-11 ; A. Simoncini and E. Longo, 'Fundamental Rights and the Rule of Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, G. de Gregorio, (Cambridge: Cambridge UP, 2021) pp. 27-41, p. 28; O. Pollicino, *Judicial Protection of Fundamental Rights on the Internet. A Road Towards Digital Constitutionalism?* (Oxford: Hart, 2021), p. 48 ; L.A. Bygrave, *Internet Governance by Contract* (Oxford: Oxford University Press, 2015).

[320] J.M. Balkin, 'Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation', *UCDL Review* (2018) ; Toronto Declaration Protecting the right to Equality and Non-discrimination in Machine Learning Sytems (2018), pp. 1149-1210, p. 1181, available at : https://www.torontodeclaration.org/declaration-text/english/

[321] J.M. Balkin, 'Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation', *UCDL Review* (2018), pp. 1149-1210, p. 1193.

[322] See e.g. F. G'sell, *Les réseaux sociaux, entre encadrement et auto-régulation* (Sciences Po, Chair Digital, Governance and Sovereignity, April 2021), available at : https://www.sciencespo.fr/public/chaire-numerique/wp-content/uploads/2022/02/F-GSELL-Research-Paper-Les-réseaux-sociaux-entre-encadrement-et-auto-régulation-version-transitoire-avril-2021-1.pdf ; N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019), pp. 88-89.

[323] P. Nemitz, 'Constitutional Democracy and Technology in the Age of Artificial Intelligence', *Philosophical Transactions of the Royal Society* (2018), p.4, available at : https://royalsocietypublishing.org/doi/10.1098/rsta.2018.0089

[324] O. Pollicino, *Judicial Protection of Fundamental Rights on the Internet. A Road Towards Digital Constitutionalism?* (Oxford: Hart, 2021)

[325] N. P. Suzor, 'Digital Constitutionalism: Using the Rule of Law to Evaluate the Legitimacy of Governance by Platforms', *Social Media + Society*, no. 4-3 (2018), pp. 1–11, p. 4.

[326] E. Celeste, 'Terms of Service and Bills of Rights: New Mechanisms of Constitutionalisation in the Social Media Environment', *International Review of Law, Computers and Technology*, Vol. 33 (2019), pp. 122-138, p. 123. See also E. Celeste, *Digital Constitutionalism: The Role of Internet Bills of Rights* (Abingdon, New York: Routledge, 2023), pp. 53-54.

79. Whatever the methodology that is applied – ex ante or ex post moderation, notice and take down procedure, human control, algorithmic moderation, or mixed procedure – the platform retains full control of it. Even if principles have been promoted from several sites, and firms have pledged to adopt good practices, in order to channel discretionary moderation, the process, especially when it is AI-led, remains rather opaque.[327] Human rights organisations, lawyers, and academics have tried to face this challenge by identifying major regulatory principles in this domain. Such is for example the case of the Santa Clara Principles on Transparency and Accountability in Content Moderation,[328] and the Toronto Declaration: protecting the rights to equality and non-discrimination in machine learning systems.[329] Firms have also committed to develop good practices, sometimes enshrined in code of ethics or professional principles.[330]

In constitutional terms, the platform executes the legislation it has enacted and imposed on the participants of the digital sphere. If a user is not happy with the decision taken by the platform, it is sometimes very difficult to have the suspension or the closure of an account, the delisting or geoblocking of a content, or the taking down of a video reviewed following the patterns that would comply with the due process of law.[331] When this is the case, it belongs to the platform to balance the rights of various parties, such as the person who published a video and the person who complains about this publication. The function of appreciating the violation or conciliation between rights which frequently have a constitutional dimension (right to privacy, non-discrimination, free speech, etc.) behoves to a private entity, which acts like a courthouse.[332] In this respect, it exercises a function which consists in applying general norms to a specific situation where two parties oppose. This scheme is very similar to adjudication. From a practical viewpoint, it is much more efficient and quicker than any enforcement of a public judicial ruling could ever be.

The main difference lies in the fact that a single actor legislates, executes, and adjudicates. The figure of the third party, which is crucial to the understanding of judicial power,[333] is lost. It follows from the general picture that if they are understood as a branch of power, platforms are definitely the least transparent and the least accountable. The way digital actors operate contributes to debase the very notion of separation of powers.[334] As Teubner puts it, "Traditionally, constitutional law is based on an institutional, procedural and personal separation of law making, law application and law enforcement. This separation is

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[327] See supra, 5.1.1. See also T. Gillespie, Governance of and by platforms', in *SAGE handbook of social media*, J. Burgess, T. Poell, & A. Marwick, (SAGE, 2017), p. 25, retrieved from http://culturedigitally.org/2016/06/governance-of-and-by-platforms/ ; T. Gillespie, *Custodians of the Internet. Platforms, Content Moderation, and the Hidden Decisions that Shape Social Media* (Yale UP, 2018) ; G. de Gregorio, 'Democratising Online Content Moderation: A Constitutional Framework', *Computer Law and Security Review* (2019), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3469443

[328] Santa Clara Principles on Transparency and Accountability in Content Moderation, available at : https://santaclaraprinciples.org/

[329] Toronto Declaration Protecting the right to Equality and Non-discrimination in Machine Learning Sytems (2018), available at : https://www.torontodeclaration.org/declaration-text/english/

[330] M. Fierens, S. Rossello and E. Wauters, 'Setting the Scene: On AI Ethics and Regulation', in *Artificial Intelligence and the Law*, J. De Bruyne, C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 49-72.

[331] See supra, 4.2.2 ; N. P. Suzor, 'Digital Constitutionalism: Using the Rule of Law to Evaluate the Legitimacy of Governance by Platforms', *Social Media + Society*, no. 4-3 (2018), pp. 1-11.

[332] R. Van Loo, 'The Corporation as Courthouse', *Yale Journal on Regulation*, Vol. 33 (2016), pp. 548. See also M. Bassini, 'Fundamental Rights and Private Enforcement in the Digital Age', *European Law Journal,* Vol. 25 (2019), pp. 182.

[333] A. Kojève, *Esquisse d'une phénoménologie du droit : exposé provisoire* (Paris : Gallimard, 1981), 588 p.

[334] G. F. Mendes, V. O. Fernandes, 'Constitucionalismo digital e jurisdição constitucional: uma agenda de pesquisa para o caso brasileiro', *Revista brasileira de direito*, Vol. 16, no. 1 (2020), pp. 1-33, pp. 14-15.

even inscribed for law making in the private sector. The strange effect of digitalisation, however, is a kind of nuclear fusion of these three elements, which means the loss of an important constitutional separation of powers."[335] In constitutional terms, algocracy is nothing else than confusion of powers, i.e. despotism. This is all the more striking as this confusion of powers is a confusion of private powers, whose motivation is strictly economic in spite of the more general relevance it has conquered today. This defines one of the singularities of digital or information capitalism.[336]

80. As Tarleton Gillespie comments, "moderation is not an ancillary aspect of what platforms do. It is essential, constitutional, and definitional. Not only can platforms not survive without moderation, they are not platforms without it."[337] In constitutional terms, the difficulty is that this constitutive feature of the digital environment is hardly compatible with the most basic requirements of constitutionalism as it is traditionally understood. This is all the more problematic as the digital sphere by definition evades the states' jurisdiction.

In order to limit the lack of transparency and accountability of current moderation procedures, Giovanni de Gregorio proposes the following:

> "the process of content moderation could be regulated by introducing and harmonizing procedural safeguards to increase the degree of transparency and accountability as well as avoiding discretionary interference with users' fundamental rights. [The] process of content moderation has been divided into three parts: notice system, decision-making and redress. First, the notice phase includes the process through which users become aware of the various steps of the content moderation procedure either when the user is a notice provider or content provider. Second, the decision-making phase concerns the reasons and effects of content removal or blocking. Thirdly, the phase of redress regards the possibility for users to ask online platforms for a review of the first decision subject to specific conditions.
>
> The following analysis of users' rights is based on four general principles: ban of general monitoring obligation; transparency and accountability in content moderation processing; proportionality of obligations applying to online platforms; availability of human intervention. More specifically, according to the first principle, States should not oblige platforms to generally moderate online content like established by the e-Commerce Directive. This ban is crucial to safeguard fundamental rights such as freedom to conduct business, privacy, data protection and, last but not least, freedom of expression. Secondly, content moderation rules should be explained to users *ex ante* in a transparent and user-friendly way. The 'content moderation notice' should include the guidelines and criteria used by online platforms to moderate content and explain the company's internal process to ensure that decisions are as predictable as possible. The third principle aims to strike a fair balance between rights of the users and obligations of platforms. Although the lack of transparent and accountable procedures relegates users in a position of *subjectionis,* however, the enforcement of users' rights should not lead to a disproportionate

[335] G. Teubner, 'Horizontal Effects of Constitutional Rights in the Internet: A Legal Case on the Digital Constitution', *The Italian Law Journal*, Vol. 3 (2017), pp. 193-205, p. 203. G. Teubner and A. Golia, 'Societal Constitutionalism in the Digital World: An Introduction', *Max Planck Institute for Comparative Public Law & International Law Research Paper,* No. 2023-11, (May 1, 2023), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4433988

[336] See e.g. S. Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (London: Profile Books, 2019) ; M.-F. Cuellar and A.Z. Huq, 'Economies of Surveillance', *Harvard LR*, Vol. 133 (2020), pp. 1280 ; N. Dyer-Witheford, A.M. Kjøsen and J. Steinhoff, *Inhuman Power* (2019) ; C. Fuchs, *Communication and Capitalism. A Critical Theory*, (London: University of Westminster Press, 2020) ; N. Couldry and U.A. Mejias, *The Costs of Connection. How Data is Colonizing Human Life and Appropriating it for Capitalism* (Stanford: Stanford UP, 2019) ; J. Duberry, *Artificial Intelligence and Democracy. Risks and Promises of AI-Mediated Citizen–Government Relations*, (Cheltenham: E. Elgar, 2022), pp. 93-125.

[337] T. Gillespie, *Custodians of the Internet. Platforms, Content Moderation, and the Hidden Decisions that Shape Social Media* (Yale UP, 2018), p. 21.

> limitation to the right and freedom of online platforms in performing their business, especially for protecting new or small platforms. The fourth principle is based on introducing the principle of human-in-the-loop in content moderation. The role of humans in content moderation could be an additional safeguard allowing users to rely on a human translation of the procedure subject to specific conditions."[338]

The Digital Services Act partially answers these requirements.

In a word, the digital environment is contributing to the solidification of private powers whose very ontology debases any effort at limitation. The platforms – i.e. in practice profit-motivated firms and humans as well as machines – to whom traditional public functions such as the balancing of conflicting fundamental rights has been delegated[339] are ontologically led to be forms of autocracies, despotisms, or regimes of confusion of powers. In updated terms, consideration the role that opaque and non-participatory procedures have in this form of governance, which is based on a kind of "technolatry,"[340] some authors have called it an "algocracy."[341]

Under such regime, increasing reliance on algorithms tends to lower the opportunities for human and popular comprehension of, and participation in, public decision-making. One has to wonder whether constitutionalism has the potential to confront these new forms of "power differentials,"[342] and prevent abuses.

5.2. Towards a new understanding of the digital (re)distribution of powers

81. Technological change has led to a major disruption of the traditional understanding of political functions within the state. As the Constitution of the Republic of Chaos suggests,[343] it has also forced a reconsideration of the Westphalian environment. Whereas states once monopolised the constitutional qualities, new actors have come to be endowed with similar properties, thus establishing a competition for worldwide governance. Maintaining the normative ambitions of constitutionalism as an enterprise that limits power requires an innovative approach.

5.2.1. Generalised constitutional heterarchy

82. According to a summary of the current situation offered by Suzor,

> "Digital intermediaries govern the internet. The telecommunication companies that provide the infrastructure, the standards organizations that design the protocols, the software companies that

[338] G. de Gregorio, 'Democratising Online Content Moderation: A Constitutional Framework', *Computer Law and Security Review* (2019) pp. 19-20, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3469443 ; see also G. de Gregorio, *Digital Constitutionalism in Europe. Reframing Rights and Powers in the Algorithmic Society* (Cambridge: Cambridge UP, 2022), pp. 157-215.

[339] See supra, 3.3.1. See also E. Brousseau, M. Marzouki and C. Meadel, *Governance, Regulations and Powers* (New York: Cambridge UP, 2012) ; G. de Gregorio, *Digital Constitutionalism in Europe. Reframing Rights and Powers in the Algorithmic Society* (Cambridge: Cambridge UP, 2022) ; S. Koloßa, 'Facebook and the Rule of Law', *ZaöRV*, Vol. 80 (2020), pp. 509-531; N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019), pp. 106-109.

[340] A. Mbembe and F. Sarr, *The Politics of Time: Imagining African Becomings* (Cambridge: Polity Press, 2023).

[341] See e.g. A. Aneesh, 'Global Labor: Algocratic Modes of Organization', *Sociological Theory*, Vol. 27 (2009), pp. 347-370 ; J. Danaher, 'Rule By Algorithm? Biga Data and the Threat of Algocracy', *Philosophical Disquisitions* (26th January 2014) ; J. Danaher, 'The Threat of Algocracy. Reality, Resistance and Accommodation', *Philosophy and Technology*, Vol. 29 (2016), pp. 245-268. See also N. Wright 'How Artificial Intelligence will Reshape the Global Order', (Foreign Affairs, 10th July 2018).

[342] Access Now, 'Human Rights in the Age of Artificial Intelligence', (November 2018), p. 17, available at : https://www.accessnow.org/wp-content/uploads/2018/11/AI-and-Human-Rights.pdf

[343] See supra, 1.

> create the tools, the content hosts that store the data, the search engines that index that data, and the social media platforms that connect us all make decisions that impact how we communicate on a broad level. They govern us, not in the way that nation-states do, but through design choices that shape what is possible, through algorithms that sort what is visible, and through policies that control what is permitted. The choices intermediaries make reflect our preferences, but also those of advertisers, governments, lobby groups, and their own visions of right and wrong."[344]

Gunther Teubner has offered the most articulated, and the most referred to, theorisation of the current global evolutions in constitutional terms. He diagnosed with accuracy the remarkable emergence of spontaneous forms of constitutionalisation and constitutionalism, beyond or aside from the states.[345] The lex digitalis is no exception. Teubner has been able to apply his theoretical framework to account for what is at stake in today's global digital governance, both in terms of fundamental rights protection, and in terms of vertical and horizontal separation of powers. With respect to the Internet, he specifically notices in a passage that is worth quoting at length, that fundamental notions like sovereignty and constitutionalism have been deeply impacted. He then offers three arguments:

> "(1) Sovereignty shift from public to private space: Constitutional rights such as free speech are no longer directed against the state but against private actors (not only Facebook, Google, Amazon and Apple, but also the Internet regime – ICANN and its subsidiaries) within the private space of the Internet. What does 'indirect' horizontal effect look like in such a context? I would argue that we are not merely concerned here with the transfer of fundamental rights of public law to private law. Instead, the issue is one of the autonomous reconstruction of constitutional rights within the social system of the Internet.
>
> (2) Sovereignty transfer from nation-states to transnational regimes, and the protection of fundamental rights within autonomous Internet law. The question of whether the ICANN panels, which are established by private ordering, should also enforce fundamental rights within the realm of the semi-autonomous legal order of ICANN-policy is even more contested. I would argue ICANN panels concretize fundamental rights within cyberspace on the basis of a fiction. They draw upon the fiction of a 'common core' of globally applicable principles of law, which include human rights, and with their help actually create Internet-specific fundamental rights within the reaches of an autonomous 'common law' of the Internet.
>
> (3) So much for sovereignty. But what about constitutionalism? Our case provokes the question: How is constitutional theory to respond to the challenge arising from three current major trends – digitisation, privatisation and globalisation – for the problem of inclusion/exclusion of whole segments of the population in the processes of global communication? That is how today's 'constitutional question' ought to be formulated, in contrast to the eighteenth and nineteenth century focus on the constitution of nation-states. While the old constitutions were simultaneously liberating the dynamics of democratic politics and disciplining repressive political power by law, the point today is to liberate and to discipline quite different social dynamics. The question is how constitutional theory will manage to generalise its nation-state tradition in contemporary terms and re-specify it. My third argument is that within global society a multiplicity of civil constitutions outside institutionalized politics is emerging. The constitution of world society is coming about not exclusively in the representative institutions of international politics, nor can it take place in a unitary global constitution overlying all areas of society, but will

[344] N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019), p. 168.
[345] See supra, 1.

> emerge incrementally in the constitutionalisation of a multiplicity of autonomous subsystems of world society."[346]

83. Like the Republic of Chaos or Bitnation, several digital actors explicitly borrow the vernacular of constitutionalism.[347] Others, like Facebook, appear to be conscious of their role as governance structures rather than mere economic actors.[348] In a more technical perspective, they also borrow the institutional structure of traditional constitutionalism. Vaios Karavas and Gunther Teubner for example focus on the Internet Corporation for Assigned Names and Numbers. According to the self-presentation it offers on its website, "ICANN is a not-for-profit public-benefit corporation with participants from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet's unique identifiers. Through its coordination role of the Internet's naming system, it does have an important impact on the expansion and evolution of the Internet." ICANN ensures the maintenance of the Central Internet Address pools and Domain Name System root zone registries. It has a crucial role in the administration and development of Internet domains, address blocks and Internet Protocol Identifiers. One of its missions is dispute resolution in case a domain name is disputed among several actors. When such a dispute appears, ICANN panels solve it by enforcing the Uniform Domain-Name Dispute Resolution Policy (UDRP).[349] This document was drafted in cooperation with the World Intellectual Property Organization. It is a kind of private, transnational norm that has a crucial impact on the functioning of what has become an essential facility of modern life.

The constitutional dimension of such a legal regime, which is reinforced by its claim to promote human rights,[350] has been underscored for example by Rolf H. Weber and R. Shawn Gunnarson.[351] It establishes a quasi-judicial forum for rapidly solving disputes bypassing the states' jurisdiction. The actors of the sector, especially domain registrants, are bound by the UDRP, which appears as a kind of (private, transnational) legislation for this sector of social life. The dispute resolution mechanism has been studied by Vaios Karavas and Gunther Teubner as an example of autonomous lex digitalis emerging from the global civil society. Under this regime, a single, private, organism enacts general rules which it enforces in a very efficient way:

> "Comparison leads to a somewhat surprising conclusion. The practices of still adolescent ICANN panels, the precedent system and the nature of the norms applied, taken together with their stronger degree of political legitimation and, above all, the mode in which their decisions are effectively enforced, furnish the lex digitalis with a far stronger degree of legal quality than that provided by the practices of a by now old and treasured lex mercatoria, whose recognition as an

[346] G. Teubner, 'Horizontal Effects of Constitutional Rights in the Internet: A Legal Case on the Digital Constitution', *The Italian Law Journal*, Vol. 3 (2017), pp. 193-205, pp. 195-196. See similarly . A. Catañeda Méndez, 'El efecto horizontal de los derecho sfundamentales en el contexto de constitucionalización global de régimen jurídico privado digital', *Revista jurídica Mario Alario d'Filippo*, Vol. 8, no. 15 (2015), pp. 29-47.
[347] See supra, 1.
[348] See supra, 5.1.2.
[349] See https://www.icann.org/resources/pages/help/dndr/udrp-en.
[350] See e.g. M. Zalnieriute, 'Human Rights Rhetoric in Global Internet Governance: New ICANN Bylaw on Human Rights', *Harvard Business Law Review*, Vol. 10 (2020), pp. 1-40.
[351] R.H. Weber and R. Shawn Gunnarson, 'A Constitutional Solution for Internet Governance', *The Columbia Science and Technology LR*, Vol. 14 (2013), pp. 1-71.

> autonomous legal order by national courts and international legal doctrine, although not complete, is, at the very least, far more developed."[352]

84. Original institutional creations contribute to the constitutionalisation of the digital sphere as well as the digitalistion of the constitutional sphere. The Blockchain technology can for example be compared to a constitutional process. It ensures the safe storage and circulation of information. The process of certification is decentralised and deterritorialised. It belongs to the users themselves. It allows the creation of "decentralised autonomous organisations" (DAO), which offer a new example of self-institutionalisation.[353] According to Eric Alston, blockchains are based on a kind of constitutional rules that defined and legitimised the evolution of the whole normative systems and transactions it makes possible:

> "How, then, can blockchains be understood as a system of governance analogous to that created by a constitution? The participants, or network nodes, in a given blockchain play the role of the government, whereas the users of a given blockchain can be seen as constituents. While network participants are not representative agents in the exact sense politicians are, they are performing governance functions on behalf of users who request transactions or store value on the cryptocurrency blockchain. The fundamental rules of the blockchain create a form of agency control by constraining the participants in the interest of the users, which creates an equilibrium that operates to the benefit of the constrained participants. Changes to cryptocurrency blockchains can thus affect any of the following: (i) the core definition of the underlying unit of value; (ii) the process of transactional validation by network participants; (iii) the incentives of network participants (often implicated by changes to transactional processes); or (iv) the comparative ability of a given blockchain to achieve its network objectives in comparison to the ability of competing blockchains to do so.
>
> An important distinction between blockchain governance and modern constitutional democracies lies in the absolute lack of separation of powers. Blockchain participants exercise executive, legislative, and judicial functions simultaneously. As participants successfully solve the cryptographic hash function underlying the proof of work algorithm, they are simultaneously processing network transactions and generating network resources (the underlying cryptocurrency), while other participants mechanically validate proposed transactions' conformity with underlying network rules. Each of these processes can be likened to a distinct role of government. Cryptocurrency production and the proposal of minor rule changes, together, are the equivalent of legislation. Processing transactions of existing cryptocurrency is like the execution of law. Ensuring conformity with network rules is akin to the judicial function of finally determining violations of the law by constituents. Currently, the incentives to perform these functions are linked to the production function; miners engage in costly processing of transactions due to the anticipated reward for successfully solving the underlying cryptographic hash function that accompanies their doing so."[354]

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[352] V. Karavas and GuntherTeubner, 'Www.CompanyNameSucks.com: The Horizontal Effect of Fundamental Rights on 'Private Parties' with Autonomous Internet Law', *Constellations*, Vol. 12 (2015), pp. 262-282, p. 276.

[353] A. Garapon and J. Lassègue, *Justice digitale. Révolution graphique et rupture anthropologique* (Paris : PUF, 2018), pp. 139-165.

[354] E. Alston, 'Constitutions and Blockchains: Competitive Governance of Fundamental Rule Sets', *Case Western Reserve Journal of Law, Technology & the Internet*, Vol. 11, No. 4 (2019) p.18, available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3358434 ; see also A. Berg, C. and M. Novak, 'Blockchains and Constitutional Catallaxy', *Constitutional Political Economy*, Vol. 31 (2020), pp. 188-204; E. Alston et al., 'Blockchain Networks as Constitutional and Competitive Polycentric Orders', *Journal of Institutional Economics*, Volume 18, Issue 5, (Cambridge UP, 2022), available at : https://www.cambridge.org/core/journals/journal-of-institutional-economics/article/blockchain-networks-as-constitutional-and-competitive-polycentric-orders/2DFD78A55D1D84EAE5D008B448531E1D.

85. The constitutionalisation of digital regimes is mostly evident in the case of the remarkable Meta (previously Facebook) Oversight Board.[355] The creation of this organism was decided in 2018 in order to review the content moderation decisions made by Facebook and Instagram. When questioned about the governance of Facebook, Mark Zuckerberg answered considering content moderation:

> "Right now, if you post something on Facebook and someone reports it and our community operations and review team looks at it and decides that it needs to get taken down, there's not really a way to appeal that. I think in any kind of good-functioning democratic system, there needs to be a way to appeal. And I think we can build that internally as a first step.
> But over the long term, what I'd really like to get to is an independent appeal. So maybe folks at Facebook make the first decision based on the community standards that are outlined, and then people can get a second opinion. You can imagine some sort of structure, almost like a Supreme Court, that is made up of independent folks who don't work for Facebook, who ultimately make the final judgment call on what should be acceptable speech in a community that reflects the social norms and values of people all around the world."[356]

The analogy with the Supreme Court of the United States, which is the most famous constitutional jurisdiction in the world, is striking. It announces the creation of a non-state constitutional adjudicator, whose mission is to decide about the use and limits of freedom of speech on two of the most powerful social networks. Today, the Oversight Board is composed of 22 members from various parts of the world who have a high degree of expertise in the digital realm. They are presented as independent from the firm, and the Board itself is funded by an independent trust established by Meta. The initial parameters of its reviewing activity are a corporate charter, bylaws and internal documents that apply worldwide. According to the Board's webpage, "When the Oversight Board reviews and decides on content, it will do so in light of Facebook's Content Policies and the values that underpin those policies." These include Voice, Authenticity, Safety, Privacy, and Dignity. Testifying to what some authors perceive as the Board's independence, it has decided to include the United Nations Guiding Principles on Business and Human Rights, as well as several human rights treaties to the norms it implements when reviewing a decision. This choice to expand the Board's parameter was rapidly analysed as an equivalent to the famous case Marbury v. Madison.[357]

The Board is easily accessible. Additionally to Meta, anyone can lodge an appeal to have a decision taken by Facebook or Instagram against her reviewed. Just like several constitutional jurisdictions in the world,[358] the Board selects a few appeals for review. A board of five members adjudicates the case. It first publishes a summary of the case and welcomes comments. It then makes a decision, which has to be approved by a majority of all the members. Finally, it either upholds or overturns the initial decision by a written, reasoned, and public decision.

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[355] See https://www.oversightboard.com/ ; see e.g. R. Gulati, 'Meta's Oversight Board and Transnational Hybrid Adjudication—What Consequences for International Law?', *German Law Journal*, Vol. 24-3, (2023), pp. 473–493.

[356] E. Klein, 'Mark Zuckerberg on Facebook's hardest year, and what comes next', *Vox* (2nd April 2018), available at : https://www.vox.com/2018/4/2/17185052/mark-zuckerberg-facebook-interview-fake-news-bots-cambridge

[357] Mardbury v. Madison, 5 US 137 (1803). See e.g. L. Gradoni, 'Constitutional Review via Facebook's Oversight Board: How platform governance had its Marbury v Madison' (VerfBlog, February 2021), available at : https://verfassungsblog.de/fob-marbury-v-madison/ ; A. Golia, 'Beyond Oversight. Advancing Societal Constitutionalism in the Age of Surveillance Constitutionalism' (February 2021), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3793219

[358] G. Tusseau, *Contentieux constitutionnel comparé. Une introduction critique au droit processuel constitutionnel* (Paris La Défense: Lextenso, 2021), pp. 1025-1034.

86. The Board's most famous decision is undoubtedly the one about Facebook's decisions concerning U.S. President Donald Trump. After the attack at the Capital of January 6, 2021, the platform decided to remove a video posted by Trump for violating its Community Standards. It also blocked Trump's account for twenty-four hours, and then indefinitely and at least until the end of his term as President of the United States. The case was referred to the Board by Facebook itself, asking whether its decision was correct and requesting recommendations about suspensions of political leaders. The Board upheld the account's initial suspension. However, it decided that Facebook had to re-examine its decision of indefinite ban. Keeping a user off the platform for an undefined period, without specifying criteria for restoration, was not appropriate. The rules that apply in such matters must be clear, necessary, and proportionate. The Board additionally proposed a series of precise recommendations. Facebook finally changed its initial decision into a two-year suspension.

The "literary style" of the Board's decision was analogous to the one a constitutional jurisdiction might have adopted.[359] It started with an exposition of the facts of the matter, and continued with its jurisdiction. It detailed the relevant standards of review: Facebook Community standards, and Instagram Community Guidelines, as well as human rights standards drawn from the UN Guiding Principles on Business and Human Rights, the International Covenant on Civil and Political Rights, and the International Convention on the Elimination of All Forms of Racial Discrimination. Then it assessed the justification for Facebook's decision as well as third-party submissions. The Board's conclusion was based on a careful analysis of the circumstances and the principles at hand. With respect with the platform's human rights responsibility, the Board analysis was very similar to what any constitutional court could have decided:

> "Facebook has become a virtually indispensable medium for political discourse and especially so in election periods. It has a responsibility both to allow political expression and to avoid serious risks to other human rights. Facebook, like other digital platforms and media companies, has been heavily criticised for distributing misinformation and amplifying controversial and inflammatory material. Facebook's human rights responsibilities must be understood in light of those sometimes competing considerations.
>
> The Board analyses Facebook's human rights responsibilities through international standards on freedom of expression and the rights to life, security and political participation. […] International law allows for expression to be limited when certain conditions are met. Any restrictions must meet three requirements – rules must be clear and accessible, they must be designed for a legitimate aim, and they must be necessary and proportionate to the risk of harm. The Board uses this three-part test to analyse Facebook's actions when it restricts content or accounts. First Amendment principles under US law also insist that restrictions on freedom of speech imposed through state action may not be vague, must be for important governmental reasons and must be narrowly tailored to the risk of harm."[360]

Making use of this three-pronged test, the majority of the Board concluded that:

> "On 6 January, Facebook's decision to impose restrictions on Mr Trump's accounts was justified. The posts in question violated the rules of Facebook and Instagram that prohibit support or praise of violating events, including the riot that was then underway at the US Capitol. Given the

[359] See https://oversightboard.com/decision/FB-691QAMHJ/
[360] See (§ 8.3) : https://oversightboard.com/decision/FB-691QAMHJ/

> seriousness of the violations and the ongoing risk of violence, Facebook was justified in imposing account-level restrictions and extending those restrictions on 7 January.
> However, it was not appropriate for Facebook to impose an indefinite suspension.
> Facebook did not follow a clear published procedure in this case. Facebook's normal account-level penalties for violations of its rules are to impose either a time-limited suspension or to permanently disable the user's account. The Board finds that it is not permissible for Facebook to keep a user off the platform for an undefined period, with no criteria for when or whether the account will be restored.
> It is Facebook's role to create and communicate necessary and proportionate penalties that it applies in response to severe violations of its content policies. The Board's role is to ensure that Facebook's rules and processes are consistent with its content policies, its values and its commitment to respecting human rights. In applying an indeterminate and standardless penalty and then referring this case to the Board to resolve, Facebook seeks to avoid its responsibilities. The Board declines Facebook's request and insists that Facebook applies and justifies a defined penalty.
> Facebook must, within six months of this decision, re-examine the arbitrary penalty that it imposed on 7 January and decide the appropriate penalty. This penalty must be based on the gravity of the violation and the prospect of future harm. It must also be consistent with Facebook's rules for severe violations which must in turn be clear, necessary and proportionate.
> If Facebook determines that Mr Trump's accounts should be restored, Facebook should apply its rules to that decision, including any modifications made pursuant to the policy recommendations below. Also, if Facebook determines to return him to the platform, it must address any further violations promptly and in accordance with its established content policies."[361]

87. In addition to this quasi-judicial task, which results in decisions to which Facebook and Instagram agree to abide by, following an equivalent of the XIXth century German theory of self-limitation of the state,[362] the Board also has the power to make more general recommendations as to the functioning of the platforms. Although it has attracted mixed comments,[363] the Board testifies to the dynamics of self-constitutionnalisation of the digital environment.[364] According to David Long and Luciano Floridi, "The OB has at least three significant strengths: its ability to enhance the transparency of content moderation decisions and processes, its ability to effect reform indirectly through policy recommendation, and its assertiveness in interpreting its jurisdiction and overruling Meta. […] Despite its strengths, the OB also has four significant weaknesses: its limited jurisdiction, limited impact, Meta's control over the OB's precedent, and its lack of diversity."[365] Nevertheless, the past action of

[361] See (§ 9) : https://oversightboard.com/decision/FB-691QAMHJ/, § 9.
[362] G. Jellinek, *Allgemeine Staatslehre* (Berlin: O. Häring, 1900).
[363] See F. G'sell, *Les réseaux sociaux, entre encadrement et auto-régulation* (Sciences Po, Chair Digital, Governance and Sovereignity, April 2021), p. 48-55, available at : https://www.sciencespo.fr/public/chaire-numerique/wp-content/uploads/2022/02/F-GSELL-Research-Paper-Les-réseaux-sociaux-entre-encadrement-et-auto-régulation-version-transitoire-avril-2021-1.pdf ; C. Arun, 'Facebook's Faces', *Harvard Law Review Forum*, Vol. 135 (2022), pp. 236-264 ; E. Douek, 'What Kind of Oversight Board Have You Given Us?' (University of Chicago Law Review Online, 2020), available at : https://lawreviewblog.uchicago.edu/2020/05/11/fb-oversight-board-edouek/ ; E. Douek, 'Facebook's 'Oversight Board': Move Fast With Stable Infrastructure and Humility', *North Carolina Journal of Law and Technology*, Vol. 21 (2019), pp. 1-78 ; D. Wong and L. Floridi, 'Meta's Oversight Board: A Review and Critical Assessment', *Minds and Machines* (2022) ; K. Klonick, 'The Facebook Oversight Board: Creating and Independent Institution to Adjudicate Online Free Expression', *Yale Law Journal*, Vol. 129 (2020), pp. 2418 ; R. Á. Costello, 'Faux Ami? Interrogating the Normative Coherence of "Digital Constitutionalism" ', *Global Constitutionalism*, Vol. 12, (2023), pp. 326-349, pp. 343-348.
[364] N. Meier and A. Golia, 'The Emerging Normative System of Meta's Oversight Board. An Introduction', *MPIL Research Paper*, No. 2022-29, available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4300480
[365] D. Wong and L. Floridi, 'Meta's Oversight Board: A Review and Critical Assessment', *Minds and Machines* (2022).

the Board leads Angelo Jr. Golia to regard this development of the digital sphere as a clear example of Teubnerian self-constitutionalisation:

> "In most recent years, SC has been often used to frame the emergence of new forms of normativity in the regulatory spaces opened by new technologies and digital economy. Still, the trajectory of FB and its OB strikingly follows the patterns outlined in Teubner's seminal work – which unsurprisingly used the digital constitution as a case study. Indeed, by now FB's processes have gone through an internal juridification (structural coupling between a social subsystem and its own law), and a stable hierarchy has emerged between primary and secondary norms à la Hart (Terms of Service and Community Standards v. established practices, decisions and codes implemented by both algorithms and human editors). Further, a clear divide has emerged between organised/decisional and spontaneous arenas, together with its distinctive power struggles and contestation practices (FB's corporate governance and moderators v. users and affected outsiders). The establishment of the OB ticks only another box of SC's checklist, i.e. the judicialisation of FB's private normative order or, even better, the emergence of a form of judicial review within it. That is not all. SC's conceptualises democratisation as the institutionalisation of a system's self-contestation."[366]

If the Oversight Board model was adopted by platforms other than those managed by Meta, like Twitter, this would truly increase its appearance as a worldwide digital constitutional court.[367]

88. The Oversight Board seems to correspond to a more general pattern to confront the digital puzzles. For example, the latest evolution of European digital constitutionalism attests to the same tools. Article 14.1 of the Digital Services Act for example reads:

> "Providers of intermediary services shall include information on any restrictions that they impose in relation to the use of their service in respect of information provided by the recipients of the service, in their terms and conditions. That information shall include information on any policies, procedures, measures and tools used for the purpose of content moderation, including algorithmic decision-making and human review, as well as the rules of procedure of their internal complaint handling system. It shall be set out in clear, plain, intelligible, user-friendly and unambiguous language, and shall be publicly available in an easily accessible and machine-readable format."[368]

Article 15 requires providers of intermediary services to make publicly available, in a machine-readable format and in an easily accessible manner, at least once a year, clear, easily comprehensible reports on any content moderation that they engaged in. The following article makes providers of hosting services to put mechanisms in place to allow users to notify them of the presence of items that seem illegal. Article 17 adds an obligation to provide a clear and specific statement of reasons to any affected recipient of the service for restrictions imposed on the ground that the information provided is illegal content or incompatible with their terms and conditions. Close to the mechanism set by Meta, Article 20.1 provides:

> "Providers of online platforms shall provide recipients of the service, including individuals or entities that have submitted a notice, for a period of at least six months following the decision referred to in this paragraph, with access to an effective internal complaint-handling system that

[366] A. Golia, 'Beyond Oversight. Advancing Societal Constitutionalism in the Age of Surveillance Constitutionalism' (February 2021), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3793219
[367] On this hypothesis, see L. Gradoni, 'Twitter Complaint Hotline Operator: Will Twitter join Meta's Oversight Board?' (VerfBlog, November 2022), available at : https://verfassungsblog.de/musk-ob/
[368] See e.g. J.P. Quintais, N. Appelman and R.Ó Fathaigh, 'Using Terms and Conditions to Apply Fundamental RIghts to Content Moderation', *German Law Journal*, Vol. 24 (2023), pp. 881-911.

> enables them to lodge complaints, electronically and free of charge, against the decision taken by the provider of the online platform upon the receipt of a notice or against the following decisions taken by the provider of the online platform on the grounds that the information provided by the recipients constitutes illegal content or is incompatible with its terms and conditions:
> (a) decisions whether or not to remove or disable access to or restrict visibility of the information;
> (b) decisions whether or not to suspend or terminate the provision of the service, in whole or in part, to the recipients;
> (c) decisions whether or not to suspend or terminate the recipients' account;
> (d) decisions whether or not to suspend, terminate or otherwise restrict the ability to monetise information provided by the recipients."

A system of appeals based on an "out-of-court dispute settlement" mechanism must also be organised pursuant to Article 21 of the DSA. The current evolution leads to a global "scenario of constitutional pluralism, a complex mosaic not only combining multiple sources, but also intersecting different legal orders.[369] The dispersion of power does not exactly lead, as in a zero-sum game, to one actor's empowerment corresponding to another's limitation of power. The fragmentation of regimes and their independence causes a situation of cumulative powers applying to individuals and groups, and at the same time competing with each other. Such is the main outreach of the concept of heterarchy. The result is a form of mixed governance, combining private sector's self-regulation and public institutions' oversight for an information society that is international, intangible, non-territorial, and decentralised,[370] to which must be added traditional forms of state governance. Because of the power asymmetry and the fundamental human values at stake, all of them, as well as the combination they present, are worth considering through a constitutional lens. In the contemporary discussion, one approach, which is totally neglected in spite of its originality and possible fruitfulness, might be worth considering with greater details.

5.2.2. Jeremy Bentham's suggestion: public opinion as a legal system

89. The philosopher Jeremy Bentham (1748-1832) is frequently mentioned in the context of digital discussions from the perspective of surveillance.[371] He is mostly known as the designer of the panopticon building[372] and the leading figure of the paradigm of "panoptism", as it is used in Surveillance Studies. Today, panoptism has become possible to an extent he could not dream of. As Lawrence Lessig for example remarks, "From the simple ability to trace back to an individual, to the more troubling ability to know what that individual is doing or likes at any particular moment, the maturing data infrastructure produces a panopticon beyond anything Bentham ever imagined."[373] Nowadays, technologies make possible what he would have dreamt of in the context of his panopticon – the circular

[369] E. Celeste, 'The Constitutionalisation of the Digital Ecosystem: Lessons From International Law', in *International Law and the Internet,* M. Kettemann, R. Kunz, A.J. Golia (Nomos: Baden-Baden, 2021), p.8, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3872818
[370] See B. Fitzgerald, ''Software as Discourse – A Constitutionalism for Information Society', *Alternative Law Journal*, Vol. 24 (1999) ; B. Fitzgerald, 'Software as Discourse? The Challenge of Information Law', *European Intellectual Property Review*, Vol. 22 (2000), p. 47.
[371] See G.T. Marx, *Windows into the Soul: Surveillance and Society in an Age of High Technology* (Chicago: University of Chicago Press, 2016), pp. 13, 41, 43 ; O.H. Gandy, *The Panoptic Sort. A Political economy of personal information* (Oxord: Oxford University Press, 2021), 342 p.
[372] J. Bentham, *The Panopticon Writings* (London, Verso, coll. Wo es war, 1995), 158 p.
[373] L. Lessig, *Code. Version 2.0* (New York: Basic Books, 2006), p. 208. See similarly J. Duberry, *Artificial Intelligence and Democracy. Risks and Promises of AI-Mediated Citizen–Government Relations* (Cheltenham: Edward Elgar, 2022), p. 48.

building he had initially designed for a prison – and, more broadly, in the context of his "panoptism" – his philosophical principle based on an obsession with seeing, recording, monitoring, controlling everyone everywhere.[374] In this context, Bentham is hardly more than a name that attracts disapproval for supporting mass surveillance, neglecting one's autonomy and privacy, mass recording of data, regular classification of everything, etc. Although is he frequently portrayed as part of the problem, for the concern his thought raises in terms of human rights protection, Bentham may also offer part of the solution. His conception of constitutional law is hardly ever referred to by constitutional scholars, let alone digital constitutional scholars. Even if it is not the most sophisticated one nor the most adapted to our present condition, my feeling is that it is worth mentioning, as some of Bentham's writings offer relevant intuitions that may be worth developing in the future. This is mostly so thanks to an idea that has been ignored until now by Bentham scholars, that of "public opinion as a legal system".

90. As I have tried to explain elsewhere with greater details,[375] from the point of view of the *Begriffsgeschichte*, Bentham seems to have been the first author to clearly and continuously adopt the idea that the Constitution does belong to the legal domain. Unlike his disciple John Austin, who regards constitutional law as being improperly so-called and only amounting to "positive morality," Bentham was adamant all his life that constitutional law is law. One of the intellectual tools that allows him to make this conceptual move is his conception of a law. A law is defined

> "an assemblage of signs *declarative* of a *volition* conceived or adopted by the *sovereign* in a state, concerning the conduct to be observed in a certain *case* by a certain person or class of persons, who in the case in question are, or are supposed to be, subject to his power: such volition trusting for its accomplishment to the expectation of certain events which it is intended such declaration should upon occasion be a means of bringing to pass, and the prospect of which it is intended should act as a motive upon those whose conduct is in question."[376]

Although different in two ways, the rules of constitutional law perfectly fit Bentham's typology of laws.[377] First, as regards their addressee, unlike the rules for ordinary individuals – the '*leges in subditos*' or '*leges in populum*' – they are addressed to the sovereign, and are called '*leges in principem*.'[378] Second, the sanction they are coupled with to make sure they

[374] J. Semple, *Bentham's Prison. A Study of the Panopticon Penitentiary* (Oxford, Clarendon Press, 1993), 344 p. ; A. Brunon-Ernst, *Beyond Foucault. New Perspectives on Bentham's Panopticon* (Ashgate, 2012) ; A. Brunon-Ernst, 'Les métamorphoses panoptiques : de Foucault à Bentham', in *Cahiers critiques de philosophie*, no. 4 (2007), pp. 61-71.

[375] G. Tusseau, *Jeremy Bentham et le droit constitutionnel. Une approche de l'utilitarisme juridique* (Paris : L'Harmattan, 2001) ; G. Tusseau, 'La constitution « face à face » : quel droit constitutionnel du bonheur pour Jeremy Bentham ?' , in , *Doctrines et réalité(s) du bonheur*, F. Lemaire and S. Blondel (Paris : Mare & Martin, coll. Droit & science politique, 2019), pp. 79-126 ; G. Tusseau, 'Between Constructivism and Immanentism: Bentham's Unsettled Conception of Constitutional Law' in *Bentham on Democracy, Courts, and Codification*, P. Schofield and X. Zhaï (Cambridge, Cambridge University Press, 2022), pp. 195-213.

[376] J. Bentham, *Of the Limits of the Penal Branch of Jurisprudence,* ed. P. Schofield (Oxford: Oxford UP, 2010), p. 24-25. See also J. Bentham, *Chrestomatia*, trad. fr., Intro. Cléro J.-P. (Paris, Cahiers de l'Unebévue, 2004), p. 249.

[377] J. Bentham, *Of the Limits of the Penal Branch of Jurisprudence,* op.cit. p. 168.

[378] J. Bentham, *Ibid.* p. 83-93. For a detailed analysis, see G. Tusseau, *The Legal Philosophy and Influence of Jeremy Bentham* (London: Routledge, 2014), 434p. In his French writings, Bentham's terminology opposes "lois *in populum*" and "lois *in imperium*". See J. Bentham, 'Vue générale d'un corps complet de legislation', in *Traité de législation civile et pénale*, tr. Fr. E. Dumont (Paris, 1830).

are obeyed by is also peculiar.[379] Four sources of sanctions are identified by Bentham in *An Introduction to the Principles of Morals and Legislation*:

> "II. There are four distinguishable sources from which pleasure and pain are in use to flow: considered separately they may be termed the *physical,* the *political,* the *moral* and the *religious:* and inasmuch as the pleasures and pains belonging to each of them are capable of giving a binding force to any law or rule of conduct, they may all of them termed *sanctions.*
>
> III. If it be in the present life, and from the ordinary course of nature, not purposely modified by the interposition of these will of any human being, nor by any extraordinary interposition of any superior invisible being, that the pleasure or the pain takes place or is expected, it may be said to issue from or to belong to the *physical sanction.*
>
> IV. If at the hands of a *particular* person or set of persons in the community, who under names correspondent to that of *judge,* are chosen for the particular purpose of dispensing it, according to the will of the sovereign or supreme ruling power in the state, it may be said to issue from the *political sanction.*
>
> V. If at the hands of such chance persons in the community, as the party in question may happen in the course of his life to have concerns with, according to each man's spontaneous disposition, and not according to any settled or concerted rule, it may be said to issue from the *moral* or *popular sanction.*
>
> VI. If from the immediate hand of a superior invisible being, either in the present life, or in a future, it may be said to issue from the *religious sanction.*"[380]

Bentham explains that regarding constitutional law,

> "Of these sanctions, that which we termed the *physical* is out of the question: for the force in the case in question is supposed to be directed by *design*. There remain the political, the religious and the moral. The force of the political sanction is inapplicable to this purpose by the supposition: within the dominion of the sovereign, there is no one who, while the sovereignty subsists, can judge so as to coerce the sovereign […]. But the force of the religious sanction is as applicable to this purpose as to any other […]. The same may be said of the force of the moral sanction. Now, the force of the moral sanction as applied to the purpose in question may be distinguished into two great branches: that which may be exerted by the subjects of the state in question acting without, perhaps even against, the sanction of political obligations, acting, in short, as in a state of nature; and that which may be exerted by foreign states. When a foreign state stands engaged by express covenant to take such a part in the enforcement of such a law as that in question, this is one of the cases in which such foreign state is said to stand with reference to such law in the capacity of a *guarantee*."[381]

Following this understanding of constitutional law, the force of constitutional law lies in Bentham's thought on the impact of the popular or moral sanction, which mainly consists of a person losing the esteem and good will that another could show towards them. Bentham had confidence in its efficiency in political matters.[382]. According to him, there are two situations in which the moral or popular sanction comes into play. In the first, the sanction is in the hands of the subjects of the sovereign. The strength of the popular sanction is all the more important as it is understood in light of Bentham's theory of sovereignty. As early as *A Fragment on Government*, he clearly stated the idea that sovereignty is not a metaphysical

[379] J. Bentham, *An Introduction to the Principles of Morals and Legislation,* ed. J.H. Burns and L.A. Hart (London: The Athlone Press, 1970), pp. 38-41.
[380] J. Bentham, *An Introduction to the Principles of Morals and Legislation*, op.cit., pp. 34-35.
[381] J. Bentham, *Of the Limits of the Penal Branch of Jurisprudence*, op. cit., p. 87, pp. 90-92.
[382] J. Bentham, *Principles of Penal Law*, in *The Works of Jeremy Bentham*, J. Bowring, Vol. I (Edinburgh), 580 p., pp. 453-458 ; J. Bentham, *Securities Against Misrule and Other Writings for Tripoli and Greece*, ed. P. Schofield (1990), pp. 140-141. See also G. Tusseau 'An Old English Tale? Bentham's Theory of The Force of a Law' in *The Legal Philosophy and Influence of Jeremy Bentham* (London: Routledge, 2014), 434p) pp. 80-133.

entity, but the result of facts, which are precisely described as a habit and a disposition to obey one or several persons, driven by a utilitarian calculation.[383] Similarly, in *Limits*, Bentham insisted on the fact that sovereignty, that is, the power that is exercised on a given population, is produced by a general attitude of that very population towards the sovereign. That is why popular sanction, which results from 'each man's spontaneous disposition'[384] is what contributes to the establishment, reinforcement, continuity, limitation and fall of the sovereign. As Bentham asserted several times, 'The ultimate efficient cause of all power of imperation over persons is a disposition on the part of those persons to obey: the efficient cause, then, of the power of the sovereign is neither more nor less than the disposition to obedience on the part of the people.'[385]. Similarly, 'The only thing that gives the sovereign body the power it possesses is the habit of submission. The only thing that can limit the same power is the same habit of submission.'[386]

Moral or popular sanction can show through a feeling of shame or ignominy, and in the possible refusal of the people to obey the wishes of the other. That last dimension is extremely important in Bentham's theory of political power. To give a paroxistic example illustrating the application of the popular sanction which gives its legal nature to constitutional law, he mentioned the execution of Charles I.[387] That is why, like the individuals who daily compare the utility of conforming to the law and the utility of disregarding it, the sovereign daily compares the utility of imposing such and such duty, and of granting such and such right, and the probability of being followed or ignored. That probability itself is nothing more than the disposition of the people to obey his orders, which is nothing else, in the end, than constitutional law. Covenants, contracts, and so on can represent formalisations of the disposition to obey.[388] Since they can be considered as indications of the conditions in which the popular sanction, which limits the scope of the power of the legislator, will be exercised, they fully deserve to be understood as 'constitutional law'.

Oren Ben-Dor presents a very complete and suggestive reconstruction of the process that is at work. According to him,

> "Constitutional limits are the justificatory conclusions of an interpretive communal process. They are not static entities that one just knows or finds in a code of law. Bearing this interpretative conception of constitutional limits in mind, the reconstruction of Bentham's utilitarian enterprise combines elements of both legal positivism and an interpretative theory of law."[389]

Bentham was led to present 'a socially dynamic conception of constitutional limits which were to be determined and effectuated by a popular collective judgement.'[390] The laws *in principem* result from the continuous, evolving, dynamic, critical, interactive and discursive

[383] J. Bentham, *A Comment on the Commentaries* and *A Fragment on Government* (London: The Athlone Press, 1977), pp. 425-448.
[384] J. Bentham, *An Introduction to the Principles of Morals and Legislation,* op. cit., p. 35.
[385] J. Bentham, *Of the Limits of the Penal Branch of Jurisprudence,* op.cit. p. 42 n.b.
[386] Bentham J., *Preparatory Principles,* ed. P. Schofield (2016)., p. 180. See also J. Bentham, 'Principes du code pénal' in *Traité de législation civile et pénale*, op. cit., p. 393 ; J. Bentham, *Securities Against Misrule and Other Writings for Tripoli and Greece*, op. cit., p. 3 ; J. Bentham, *Political Deontology*, UC xv, 19 (Thanks are due to Emmanuelle de Champs for allowing me to access her transcription of these manuscripts).
[387] J. Bentham, *Securities Against Misrule and Other Constitutional Writings for Tripoli and Greece*, op. cit., pp. 122-123.
[388] J. Bentham, *Of the Limits of the Penal Branch of Jurisprudence*, op. cit., pp. 88-89.
[389] O. Ben-Dor, *Constitutional Limits and the Public Sphere. A Critical Study of Bentham's Constitutionalism* (Oxfort, Portland : Hart Publishing, 2000), p. 24.
[390] O. Ben-Dor, *Ibid.*, p. 3.

utilitarian assessment of the action of the governing minority that is conducted by the political community. They express the popular judgement on the limits of political obedience and duty.[391] The process of collective deliberation, which exists at the same time between the members of the governed majority, and between the governed majority and the governing minority, at the same time confers, justifies and limits the political power. It determines and applies constitutional limits through the sanction of disobedience and the possible withdrawal of obedience which would result in the end of sovereignty.

The prerequisites of such a social process are the conditions for the formation of a public opinion through collective discussion and deliberation. That is why Bentham always fervently wanted the social conditions necessary for the development of a public sphere to be established. If that preoccupation was rooted in the very beginning of his thought, it later on took on the form of the Public Opinion Tribunal.[392] The Public Opinion Tribunal could be a constitutional equivalent to the people sometimes portrayed as the "citizens of cyberspace,"[393] or the "people of the Internet."[394] In his constitutional projects, Bentham always intended to maximise the occasions for that institution to be able to express the moral or popular sanction. That is how one should understand the right to petition the government[395] and, more generally,[396] the necessity of guaranteeing the freedom of the press and the publicity of governmental actions.[397]

91. It is in this respect that one of Bentham's fascinating intuitions should be viewed. The control that weighs on the governing minority and guarantees that it pursues the greatest happiness of the greatest number is mainly exercised by the Public Opinion Tribunal.[398] That fictitious body draws its power from the way it administers the moral or popular sanction. Recognised in *Constitutional Code*,[399] it is the object of the following provision:

> "Art. 4. Public Opinion may be considered as a system of law, emanating from the body of the people. If there be no individually assignable form of words in and by which it stands expressed, it is but upon a par in this particular with that rule of action which, emanating as it does from lawyers, official and professional, and not sanctioned by the Legislative authority, otherwise than by tacit sufferance, is in England designated by the appellation of Common Law. To the pernicious exercise of the power of government, it is the only check; to the beneficial, an indispensable supplement. Able rulers lead it; prudent rulers lead or follow it; foolish rulers disregard it. Even at the present stage in the career of civilisation, its dictates coincide, on most points, with those of the greatest-happiness principle; on some, however, it still deviates from them: but, as its

[391] On the formation of such judgements, at the individual and collective levels, see *ibid.*, pp. 191-233.
[392] See J. Bentham, *Constitutional Code*, Vol. I, ed. F. Rosen and J.H. Burns (Clarendon Press, 1983), pp. 35-39 ; J. Bentham, *First Principles Preparatory to Constitutional Code*, ed. P. Schofield (1989), pp. 56-76.
[393] R. Gelman, 'Draft Proposal-Declaration of Human Rights in Cyberspace' (1997), available at : http://be-in.com/10/rightsdec.html.
[394] R. Lytle, 'Explore Mashable's Crowdsourced Digital Bill of Rights' (Mash-able, *2013*), available at : https://mashable.com/2013/08/12/digital-bill-of-rights-crowdsource/
[395] J. Bentham, 'Principes du code pénal', op. cit., pp. 396-398.
[396] O. Ben-Dor, *Constitutional Limits and the Public Sphere. A Critical Study of Bentham's Constitutionalism*, op. cit., pp. 154-155.
[397] See e.g. J. Bentham, *On the Liberty of the Press, and Public Discussion and Other Legal and Political Writings for Spain and Portugal*, ed. C. Pease-Watkin and P. Schofield (2012) ; J. Bentham, *Constitutional Code*, op. cit., pp. 39-41 ; J. Bentham, 'Principes du code pénal', op. cit., pp. 381-382 ; Bentham J., *Principles of Penal Law*, *op. cit.*, pp. 454, 458. See G. Tusseau G., *Jeremy Bentham et le droit constitutionnel. Une approche de l'utilitarisme juridique*, op. cit., pp. 257-269 ; G. Tusseau, *Jeremy Bentham. La guerre des mots*, (Paris : Dalloz, 2011), pp. 140-157.
[398] G. Tusseau, *Ibid.*, p. 140-157.
[399] J. Bentham, *Constitutional Code*, op.cit., p. 36.

> deviations have all along been less and less numerous, and less wide, sooner or later they will cease to be discernible; aberration will vanish, coincidence will be complete."

The idea that public opinion itself can be understood as a 'legal system' bears the mark of Bentham's panlegalism.[400] His theory is evidently connected to state constitutionalism, although he does not use the term "state" very often. Nevertheless, his conception of constitutional law is quite liberal in terms of its range of application. There is no fundamental obstacle to its being used to address a wide variety of social phenomena, like in Teubner's writings, which value hybrid forms of constitutionalism.[401] In a general context of constitutional levelling,[402] putting public opinion on a par with the other constitutional powers that have appeared in the digital age is one way to articulate the necessary involvement of ordinary people, associations, NGOs, activists, etc. with contemporary digital governance.

Examples of situations where public opinion was able to influence major digital actors do not really abound. Nor do they necessarily appear particularly convincing. But they exist. For example, in 2020, the campaign #StopHateforProfit was launched against Facebook's refusal to suppress a publication by which Donald Trump threatened protesters after George Floyd's death. Firms like Coca-Cola, Unilever, The North Face, and Verizon suspended their publications on the network, thus exercising the form of "organized social pressure"[403] Suzor alludes to. It can be understood as a Benthamian constitutional limitation of the platform's power.[404]

Other devices participate in the same logic. For example, Twitter and YouTube grant "authorized reporters" or "trusted flaggers" a special status that allows them to identify and report inappropriate content on behalf of others, thus making moderation practices more precise, more effective, and more crowd-sourced. Their situation is not unsimilar to a committee of the Public Opinion Tribunal, as exposed by Bentham.[405] This device is explicitly foreseen in Article 22 of the Digital Services Act:

> "1. Providers of online platforms shall take the necessary technical and organisational measures to ensure that notices submitted by trusted flaggers, acting within their designated area of expertise, through the mechanisms referred to in Article 16, are given priority and are processed and decided upon without undue delay.
>
> 2. The status of 'trusted flagger' under this Regulation shall be awarded, upon application by any entity, by the Digital Services Coordinator of the Member State in which the applicant is established, to an applicant that has demonstrated that it meets all of the following conditions:
>
> (a) it has particular expertise and competence for the purposes of detecting, identifying and notifying illegal content;
>
> (b) it is independent from any provider of online platforms;

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[400] G. Tusseau, 'An Old English Tale? Bentham's Theory of The Force of a Law', in *The Legal Philosophy and Influence of Jeremy Bentham,* op.cit., pp. 80-133.

[401] See e.g. G. Verschraegen, 'Hybrid Constitutionalism, Fundamental Rights and the State. A Response to Gunther Teubner', *Netherlands Journal of Legal Philosophy*, Vol. 40 (2011), pp. 216-229.

[402] See supra, 3.3.2 and 5.2.1.

[403] N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives*, op. cit., p. 121.

[404] F. G'sell, *Les réseaux sociaux, entre encadrement et auto-régulation* (Sciences Po, Chair Digital, Governance and Sovereignity, April 2021), p. 24, available at : https://www.sciencespo.fr/public/chaire-numerique/wp-content/uploads/2022/02/F-GSELL-Research-Paper-Les-réseaux-sociaux-entre-encadrement-et-auto-régulation-version-transitoire-avril-2021-1.pdf

[405] J. Bentham, *Securities Against Misrule and Other Constitutional Writings for Tripoli and Greece*, op. cit., 326 p.

(c) it carries out its activities for the purposes of submitting notices diligently, accurately and objectively."

A study of the way the organisation Women, Action, and the Media (WAM!) contributed to express the voice of the public regarding Twitter's practices similarly testifies to the efficiency of the procedure.[406] One recent illustration of a constitutional resistance move on the part of the digital public opinion is the decision of many users of Twitter to move to another service, Mastodon, when they learnt about Elon Musk's takeover of the firm. Disapproving of his understanding of freedom of speech, users decided to abandon his platform, thus decreasing its economic value.[407] Firms also had their say here. Half of Twitter's top 100 advertisers appear to no longer be advertising on the website.[408] Decreasing its revenue may be a strong means to give a new orientation to the way such a private power is exercised. This kind of Benthamian public opinion constitutionalism could be a secure way to ensure the enforcement of constitutional values as they have been displayed above.[409] Teubner and Golia have already theorised this kind of resistance in constitutional terms. According to them,

> "The constitutional counterstrategies inspired by societal constitutionalism are expressed by two key concepts: resistibility and contestability. They represent two sides of a coherent strategy against the double colonization of the digital space by the power-profit complex. This strategy has the potential to transform digital constitutionalism from an academic concept into a socio-political movement.55 Resistibility implies civil society's defense against the political economy of digitality. Against the colonizing tendencies of digitalized politics, it will have to create social counter-power, mainly by protest movements and civil society groups. This is not just wishful thinking. Indeed, 'the use of algorithmic governance in increasingly high-stakes settings has generated an outpouring of activism, advocacy, and resistance.'56 Against the excessive economization of the digital world, profit- threatening strategies are the most promising instruments which law and politics could impose. Contestability will imply, internally, the protection of self-contestation. Digital platforms will have to allow procedures for internal opposition and whistleblowing. Externally, the expansion of access to justice is needed, against algorithmic politics and digitalized economization. Ultimately, this symposium issue appeals to 'institutional imagination' in the sense of Roberto Unger.57 It has a critical, normative, and transformative outlook and aims to offer concrete proposals within the broader context of digital constitutionalism."[410]

92. There seems to be a wide agreement, at least publicly displayed, on the values that have to be promoted and protected in the digital sphere.[411] The main source of concern

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[406] J. Matias et al. , 'Reporting, Reviewing, and Responding to Harassment on Twitter' (May 2015), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2602018

[407] See e.g. M. Sweney, 'Twitter "to lose 32m users in two years after Elon Musk takeover" ', *The Guardian* (13th December 2022), available at: https://www.theguardian.com/technology/2022/dc/13/twitter-lose-users-elon-musk-takeover-hate-speech

[408] H. Hubbard, 'Twitter has lost 50 of its top 100 advertisers since Elon Musk took over, report says' (Npr, Business25th November 2022), available at : https://www.npr.org/2022/11/25/1139180002/twitter-loses-50-top-advertisers-elon-musk#:~:text=Twitter%20has%20lost%2050%20of,Musk%20took%20over%2C%20report%20says&text=via%20Getty%20Images-,Half%20of%20Twitter's%20top%20100%20advertisers%20appear%20to,be%20advertising%20on%20the%20website.&text=via%20Getty%20Images-,Half%20of%20Twitter's%20top%20100%20advertisers%20appear%20to,be%20advertising%20on%20the%20website ; C. Cohen, 'Twitter confronté à la fuite des annonceurs en France', *Le Figaro* (27th March 2023), available at : https://www.lefigaro.fr/medias/twitter-confronte-a-la-fuite-des-annonceurs-en-france-20230327

[409] See supra, 4.

[410] G. Teubner and A. Golia, 'Societal Constitutionalism in the Digital World: An Introduction', *Max Planck Institute for Comparative Public Law & International Law Research Paper,* No. 2023-11, (May 1, 2023), p. 10, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4433988

[411] See supra, 4.

is how these principles can be enforced. Self-regulation is still the dominant US perspective. But its efficiency can be debated, especially because economic actors can have very few incentives to regulate in the public interest.[412] The capture of the new digital public sphere is intrinsic to its origins and development. This is a classical problem of Benthamian duty-and-interest-junction.[413] This principle is at the heart of Bentham's constitutionalism. His ambition is to design an institutional setting such that the ruling few have an incentive to pursue the greatest happiness to the greatest number. In other terms, it must be made their personal interest to promote the general interest.

Several concrete initiatives to promote constitutional values can be understood as attempts to formalise the Public Opinion Tribunal. In this respect, Bentham's theory can help make sense of the implicit underpinnings of such initiatives. His writings at least offer a promising lens to understand them in a constitutional key. In order to give a more organic and more systematic appearance to the Public Opinion Tribunal and its committees, several proposals have been made.[414] Based on the idea that self-enforcement is a weak and highly dubious perspective, on the one hand, and crude state regulation a constitutional non sequitur, on the other, forms of co-regulation seem in order. They tend to promote the involvement of all the stakeholders – governments, users, workers, producers, designers, etc. – in the governance of the digital realm, thus readjusting the power imbalance. For example, the High-Level Expert Group on Artificial intelligence recommends to

> "Apply a process of representation, consultation and, where possible, co-creation, where workers are involved in the discussion around AI production, deployment or procurement process in order to ensure that the systems are useable and that the worker still has sufficient autonomy and control, fulfilment and job satisfaction. This implies informing and consulting workers when developing or deploying AI, as set out in the existing texts adopted by the European institutions and the social partners. Workers (not only employees but also independent contractors) should be involved in discussions around the development, deployment or procurement of algorithmic scheduling and work distribution systems, to ensure compliance with health and safety legislation, data policy, working time legislation and work-life balance legislation. Social dialogue plays a key role to enable this."[415]

Recently, in Taiwan, the project of a Digital Intermediary Services Act 2022 headed in the same direction. Its promoters proposed to create a multi-stakeholder institution to help platforms establish self-regulatory codes and mechanisms. The remit of such an institution would include advertisement regulation, content limitation, as well as pluralism promotion. The foreseen collaborative dedicated body would offer a forum of public and private discussion. 15 members appointed for 3 years would represent the government, industries, citizens, academics, professionals of law, finance, technology, representatives of associations

[412] J. Black, 'Critical Reflections on Regulation', *Australian Journal of Philosophy* (2002) ; M. Fierens, S. Rossello and E. Wauters, 'Setting the Scene: On AI Ethics and Regulation', in *Artificial Intelligence and the Law*, op. cit., pp. 49-72, p. 60.

[413] See e. g. J. Bentham, *Constitutional Code*, *op. cit.*, pp. 168-170 ; J. Bentham, *A View of the Hard Labour Bill*, in *The Works of Jeremy Bentham,* J. Bowring, Vol. IV (Edinburgh), 580p., pp. 1-35 ; J. Bentham, 'Constitutional Code Rationale' in *First Principles Preparatory to Constitutional Code,* op. cit., p. 235.

[414] For a skeptical view, see e.g. R. Griffin, 'Public and Private Power in Social Media Governance: Multistakeholderism, the Rule of Law and Democratic Accountability', *Transnational Legal Theory,* Vol. 14-1, (April 2023), available at : https://www.tandfonline.com/doi/full/10.1080/20414005.2023.2203538

[415] High-Level Expert Group on Artificial intelligence, 'Policy and Investment Recommendations for Trustworthy AI', (June 2019), p.13, available at : https://www.europarl.europa.eu/italy/resource/static/files/import/intelligenza_artificiale_30_aprile/ai-hleg_policy-and-investment-recommendations.pdf

and civic groups would be gathered and develop a shared reference code of conduct. Nevertheless, the bill failed to make progress in the legislature.[416]

In France, with respect to algorithms, then Deputy and mathematician Cédric Villani proposed to create a body of certified experts who would assess algorithms,[417] as well as organise audits by the citizens themselves.[418] The French Commission nationale de l'informatique et des libertés also proposed to create a national platform for auditing algorithms.[419] Similarly, in order to reinforce responsibility, accountability, and trust, Carolin Kemper proposed audits of the technologies that are used for decision-making purposes. She also mentioned the possibility of creating a dedicated administration to design standards and identify best practices."[420] The private sphere (or spheres) could also organise in order to develop a logo, label, or any form of certification for ethical digital instruments.[421] The Ranking Digital Rights Scoreboards[422], as well as the Freedom House Index,[423] could be a source of inspiration. They could act as signals that trigger constitutionally-inspired reactions. In this respect, the organisation Article 19 proposes social media councils to address the tech companies' power and its opacity and unaccountability:

> "we're calling for the creation of the Social Media Council. A new transparent, inclusive, independent and accountable mechanism to address content moderation problems using international human rights laws as the basis.
>
> We want to make sure that decisions on content moderation are compatible with the requirements of international human rights standards, and are shaped by a diverse range of expertise and perspectives."[424]

More precisely,

> "The key objectives of the SMC are to:
>
> • Review individual content moderation decisions made by social media platforms on the basis of international standards on freedom of expression and other fundamental rights. The right of appeal gives the SMC more credibility in the eyes of the public and gives individual users an opportunity to be heard on matters that directly impact them.
>
> • Provide general guidance on content moderation guided by international standards on freedom of expression and other fundamental rights. While there is a growing consensus on the relevance of international human rights law for content moderation, this is still an emerging field with many open questions.

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[416] K.-W.Chen and Y.-H. Lai, '*Taiwan's Participatory Plans for Platform Governance: A new role model for global platform governance?', (*VerfBlog, May 2010), available at : https://kuan-wei-chen.com/2023/05/10/verfassungsblog-taiwans-participatory-plans-for-platform-governance/

[417] C. Villani, *Donner un sens à l'intelligence artificielle. Pour une stratégie nationale et européenne, Mission confiée par le Premier Ministre* (March 2018), p. 143-144, available at : https://www.vie-publique.fr/sites/default/files/rapport/pdf/184000159.pdf

[418] *Ibid.*

[419] Commission nationale informatique et libertés, *Comment permettre à l'homme de garder la main? Les enjeux éthiques des algorithmes et de l'intelligence artificielle* (December 2017), p. 57-58, available at : https://www.cnil.fr/sites/default/files/atoms/files/cnil_rapport_garder_la_main_web.pdf

[420] C. Kemper, 'Kafkaesque AI? Legal Decision-Making in the Era of Machine Learning', *Intellectual Property and Technology Law Journal*, Vol. 24-2 (2020), pp. 251-294, pp. 286-287.

[421] M. Fierens, S. Rossello and E. Wauters, 'Setting the Scene: On AI Ethics and Regulation', in *Artificial Intelligence and the Law*, op. cit., pp. 49-72, p. 61 ; S. Gerke, ' "Nutrition Facts Labels" for Artificial Intelligence/Machine Learning-Based Medical Devices—The Urgent Need for Labeling Standards', The George Washington Law Review, Vol. 9, No. 1 (February 2023), available at : https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID4529753_code2972184.pdf?abstractid=4404252&mirid=1&type=2

[422] See https://rankingdigitalrights.org/

[423] See https://freedomhouse.org/

[424] See https://www.article19.org/social-media-councils/ ; with greater details, see Article 19, 'Social Media Councils One piece in the puzzle of content moderation' (12th October 2021), available at : https://www.article19.org/wp-content/uploads/2021/10/A19-SMC.pdf ; see also the Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, A/HRC/38/35 (6th April 2018), available at : https://documents-dds-ny.un.org/doc/UNDOC/GEN/G18/096/72/PDF/G1809672.pdf?OpenElement

• Act as a forum where all stakeholders can discuss and adopt recommendations (or the interpretation thereof). This participatory methodology promotes collective adoption and interpretation of guidelines and can help embed international standards into practices of content moderation.
• Use a voluntary-compliance approach to the oversight of content moderation where social media platforms and all stakeholders sign up to a model that does not create legal obligations and where they voluntarily implement the SMC's decisions and recommendations. The SMC will be a self-regulatory mechanism where representatives of the various stakeholders come together to regulate the practices of the sector."[425]

The French Conseil national du numérique also proposed the creation of a specific agency to assess the trustworthiness of platforms:

"Une agence européenne de notation de la loyauté, appuyée sur un réseau ouvert de contributeurs
Dans un univers économique où la réputation des acteurs en termes de qualité de service mais aussi en termes de comportement joue un rôle structurant, une agence de notation à forte visibilité peut constituer une incitation forte pour les plateformes à se conformer à des pratiques respectueuses de leurs utilisateurs, individuels comme professionnels.
Cette agence de coordination aura pour double mission :
a/ rendre accessible via un point d'entrée unique toute une série d'informations déjà rassemblées par les observateurs et outils existants :
* les remontées d'informations :
- des associations de consommateurs ;
- des acteurs de l'internet citoyen ;
- remontées des consommateurs et utilisateurs eux-mêmes via des forums, messages adressés aux entreprises via les réseaux sociaux etc. ;
- des communautés de technophiles ;
- des entreprises victimes de pratiques discriminatoires ou abusives.
* les outils :
- de tracking de la circulation des données d'un service à l'autre ;
- de comparaison des CGU, et de leur lisibilité ;
- etc. […]
b/ ouvrir un espace de signalement de pratiques contraires à la loyauté et à l'autodétermination des individus.
Aujourd'hui les utilisateurs constituent de formidables observateurs des pratiques des acteurs économiques. Ils sont d'ores et déjà habitués à manipuler certains dispositifs de notation et avis en ligne. Lorsqu'ils observent des pratiques déloyales, les utilisateurs doivent pouvoir disposer d'un canal pour exercer une "voix de retour" et partager ces remontées avec les autorités compétentes. Il ne faut pas se priver d'une source d'information essentielle, au plus près des difficultés et bonnes pratiques rencontrées.
Sur la base de ces remontées indirectes et directes, l'agence de notation disposerait de deux leviers d'action :
1. La réputation, avec la publication d'avis à échéance régulière pouvant déboucher sur des "labels" ou notation du comportement. Pour les plateformes loyales, cela pourrait être un facteur de différenciation et un avantage compétitif.
2. La prise en compte de la notation par les investisseurs, privés et publics, et la mise à disposition de leurs résultats pour alimenter les décisions stratégiques des entrepreneurs.

[425] Article 19, 'Social Media Councils One piece in the puzzle of content moderation' (12th October 2021), pp.5-6, available at : https://www.article19.org/wp-content/uploads/2021/10/A19-SMC.pdf

> La France pourrait impulser le mouvement en mettant en place cette agence dans un cadre français. Celle-ci aura nécessairement vocation à devenir européenne à moyen terme."[426]

All these recommendations, which tend to propose the establishment of a kind of Digital Ombudsman, first depend on transparency and openness. As Lessig notes, "To the extent that code is open code, the power of government is constrained; Government can demand, government can threaten, but when the target of its regulation is plastic, it cannot rely on its target remaining as it wants."[427] They also depend on shared literacy.

93. The Public Opinion Tribunal may also have its say before the technology is used in the digital environment and contributes to the creation of a specific social space. Its intervention may take place at the level of the very conception of the technology, so that it complies with constitutional values from the start. The Global Network initiative: Global Network Initiative offers an example of cooperation between tech industry, human rights groups, academics, and investors, to share info and promote industry standards that protect human rights. From a technical perspective, Andrea Simoncini and Erik Longo insist on the necessity to invent a new form of constitutionalism that directly combines values and technology:

> "It is necessary to incorporate the values of constitutional rights within the 'design stage' of the machines; for this, we need what we would define as a 'hybrid' constitutional law – that is, a constitutional law that still aims to protect fundamental human rights and at the same time knows how to express this goal in the language of technology. Here the space for effective dialogue is still abundantly unexplored, and consequently, the rate of 'hybridization' is still extraordinarily low. We argue that after the season of protection by design and by default, a new season ought to be opened – that of protection 'by education', in the sense that it is necessary to act when scientists and technologists are still studying and training, to communicate the fundamental reasons for general principles such as personal data protection, human dignity, and freedom protection, but also for more specific values as the explainability of decision-making algorithms or the 'human in the loop' principle. Technology is increasingly integrated with the life of the person, and this integration cannot realistically be stopped, nor would it be desirable, given the huge importance for human progress that some new technologies have had. The only possible way, therefore, is to ensure that the value (i.e., the meaning) of protecting the dignity of the person and his or her freedom becomes an integral part of the training of those who will then become technicians. Hence the decisive role of school, university, and other training agencies, professional or academic associations, as well as the role of soft law."[428]

This implies a participation of the stakeholders.[429] This is precisely what Laurence Diver's "Digisprudence" aims at: "'Constitutional' protections can be built into the very fabric of the code."[430] The main originality of digisprudence is the moment of intervention. Participatory design, constructive technology assessment, value-sensitive design are not easy, especially as the creation of the technologies frequently takes place in very small firms. In order to secure the code's legitimacy, digisprudence must come at an earlier stage. His

[426] Conseil national du numérique, 'Ambition numérique. Pour une politique française et européenne de la transition numérique' (June 2015), pp. 74-76, available at : https://cnnumerique.fr/files/2017-10/CNNum--rapport-ambition-numerique.pdf
[427] L. Lessig, *Code. Version 2.0*, op. cit., p. 150.
[428] A. Simoncini and E. Longo, 'Fundamental Rights and the Rule of Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* op. cit., pp. 27-41, p. 41.
[429] M. Coeckelbergh, *The Political Philosophy of Artificial Intelligence* (Cambridge: Polity, 2022), pp. 27-47.
[430] L. Diver, *Digisprudence. Code as Law Rebooted* (Edinburgh : Edinburgh University Press, 2022), p. 2.

"technological constitutionalism"[431] applies not to the programmer, but to the programmer of the programmer, which defines the code to create the code:

> "There is thus a parallel between constitutional and parliamentary law-making on the one hand, and the programmer of the programme – represented *inter alia* in the affordances of the integrated development environment – and the product designer on the other. By considering what the (secondary) affordances of the design environment are and ought to be, we can imagine binding the creator of the (primary) technological normativity embodied in the finished product."[432]

The principles that structure digisprudence build on the works of authors such as Roger Brownsword,[433] Bert-Jaap Koops,[434] Marco Goldoni,[435] or Lodewijk Asscher.[436] Despite varying approaches, they value a due process-inspired, human rights-sensitive, participatory, and accountable production of the code. "The question is ultimately one of what the design affords to the end-user (contestability, choice, transparency, and delay), legal institutions (appropriate and sufficient quality of evidence), and its own designer or manufacturer (oversight)."[437] Each of the "digisprudential affordances" aims to face a difficulty that is intrinsic to "code as law". With respect to the ruleishness of the code, digisprudence affords choice in terms of configurability of the system. The designer should start from the assumption that the end-user autonomy must be maximised and the constitutive dimension of the code, minimised. With respect to opacity, digisprudence advocates intelligible, coherent and transparent rules in terms of provenance, purpose, and operation. As far as immediacy is concerned, digisprudence proposes to give delay, and values "desirable inefficiency." Slowing the pace of the code enables critical thinking and creative expression. Concerning immutability, unchangeable devices must be avoided at the design stage, and replaced by sensitivity to context and concrete changes. Finally, to confront the pervasiveness of the code's normativity, digisprudence relies on an increased requirement of justification that grows with the limitations on freedom.[438] The overarching objective is to restore human autonomy, or what one might call "digital citizenship," in a context where it is threatened.

94. The suggestions exposed in this part avowedly rely on a strong measure of optimism. Nevertheless, two additional comments can be made. First, public opinion does not need to be a unitary group, or a monolithic coalition. Bentham makes clear that the Public Opinion Tribunal consists of several committees,[439] whose interests may differ. A multi-stakeholder approach is thus perfectly conceivable from an analytic-descriptive viewpoint, and desirable from a normative viewpoint.

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[431] *Ibid*., pp. 32, 65-67.
[432] *Ibid*., p. 229.
[433] R. Brownsword, 'Technological Management and the Rule of Law', *Law Innovation and Technology*, Vol. 8 (2016), pp. 100-140 ; R. Brownsword, 'What the world needs now: Techno-regulation, human rights and human dignity' in *Global Governance and the Quest for Justice*, R. Brownsword, Vol. 4 (Hart Publishing, 2004).
[434] B.-J. Koops, 'Criteria for normative technology: The acceptability of "code as law" in light of democratic and constitutional values' in *Regulating Technologies: Legal Futures, Regulatory Frames and Technological Fixes*, R. Brownsword and K. Yeung (Hart, 2008).
[435] M. Goldoni, 'The politics of code as law: Toward input reasons' in *Freedom of Expression, the Internet and Democracy*, J. Reichel and A.S. Lind (Brill, 2015).
[436] L.F. Asscher, 'Code as Law: Using Fuller to Assess Code Rule's', in *Coding Regulation. Essays on the Normative Role of Information Technology*, E.J. Dommering and L.F. Asscher (TMC Asser Press, 2006), p. 86.
[437] L. Diver, *Digisprudence. Code as Law Rebooted,* op. cit., p. 160.
[438] *Ibid.*, esp. pp. 166-205.
[439] J. Bentham, *Securities Against Misrule and Other Writings for Tripoli and Greece*, ed. P. Schofield (1990).

Second, Bentham was by no means naïve as to the possibilities of manipulation of public opinion. His ethics of empirically-inspired and evidence-based public discourse,[440] as well as his theory of political fallacies,[441] precisely aim at empowering individuals to identify and combat the dishonest, malicious discourses and practices that are inspired by what he calls "sinister interests," whose characteristic is to be antagonic to the greatest happiness of the greatest number.[442] As a consequence, Bentham's conception of constitutional law or constitutional barriers to possibly sinister social powers emanating from public opinion does not leave us totally armless when confronted with the possibility of manipulation.

[440] See G. Tusseau, *Jeremy Bentham. La guerre des mots*, (Paris : Dalloz, 2011), pp. 47-55.
[441] J. Bentham, *The Book of Fallacies*, ed. P. Schofield (Oxford: Clarendon Press, 2015), 552 p. On the fallacies of the digital age or « techno-fallacies » (fallacies of technological determinism and neutrality; fallacies of scientific and technical perfection; fallacies involving subjects of surveillance; fallacies of questionable legitimation; fallacies of logical or empirical analysis), see e.g. G.T. Marx, *Windows into the Soul: Surveillance and Society in an Age of High Technology* (Chicago: University of Chicago Press, 2016), pp. 267-275; additional material at https://press.uchicago.edu/sites/marx/marx_Chapter12_ancillary_material.pdf.
[442] G. Tusseau, *Jeremy Bentham. La guerre des mots*, (Paris : Dalloz, 2011).

6. IDEOLOGICAL DECONSTRUCTION OF THE CONSTITUTIONAL LENS

95. One still has to wonder why the lens of constitutionalism has been chosen to address these issues. Although this theoretical and practical move has some intuitive character, it is by no means necessary, and it is not without ambiguities and without raising doubts. From an epistemological perspective, constitutionalism appears as a specific, active, way to frame social, political, legal, or moral issues. Three main understandings allow discussing the possible rationales for a conceptual transfer from the analog to the digital sphere. One is a discourse of hope, where the values of the XVIIIth century revolutions are preserved. Another is a discourse of scepticism, where constitutionalism mostly appears as an insurance-policy for public and private powers in search of legitimation. The last one is a discourse of hopelessness, based on Ferdinand Lassalle's thesis according to which whenever one party invokes a constitution as its battle cry, it is as if this power structure was already dead.

6.1. Digital constitutionalism's lack of neutrality

96. Despite the extensive legal literature that has developed to account for the changes in contemporary law, several authors remain sceptical of constitutionalist analysis as a model for understanding the global legal environment. In their view, the transfer of the language of constitutionalism to spheres other than the state remains illegitimate,[443] so that the global constitutional discourse is more a matter of manipulation or pure wordplay than of objective analysis. Others have doubts about the transposability of the concept of constitution to domains as far removed from those to which traditional constitutions were applied as AI.[444] Others consider that, regardless of the legitimacy of the transfer of vocabulary to the private sphere, the instruments of constitutionalism are simply not adapted to the regulation of powers that remain fundamentally driven by private sphere logic. Moreover, there is a certain facility in the use of the terms "constitutionalism" or "constitutionalisation." While no one seems to be able to identify a "constitution" as such in the digital sphere, the other two terms are more vague, and may refer to processes or dynamics that are not yet complete.

Strictly speaking, it seems rather futile to try to work out a real definition of constitution, constitutionalism or constitutionalisation.[445] Therefore, claiming that a certain legal situation is 'really' or 'truly' constitutional or not seems to be of little interest. In the current context, what is important is the way in which this network of terms is actually mobilised, used, welcomed or rejected by different speakers for their own purposes.

97. Clearly, global constitutionalists may be motivated by a generous desire to promote human rights worldwide and in the private domain. But from the perspective of

[443] See e.g. R. Wahl, 'In Defence of "Constitution" ' in *The Twilight of Constitutionalism?*, P. Dobner and M. Loughlin (Oxford UP, 2010), pp. 220-242.
[444] S. Wolfram, 'Computational Law, Symbolic Discourse, and the AI Constitution', in *Ethics of Artificial Intelligence*, S. Matthew Liao (Oxford: Oxford UP, 2020), pp. 155-180, pp. 175 178.
[445] V. en ce sens M. Troper, 'Pour une définition stipulative du droit, *Droits*, no. 10 (1989), pp. 101-104.

reconstructing the dynamics of legal imaginaries and ideologies, the development of this intellectual framework may also be the result of deeper tensions within the mindset of legal scholars. Jerome Frank's legal realism[446] may suggest analysing the use of the constitutional paradigm as a way for legal doctrine and legal practice to relieve themselves of the anxiety of not being able to cope with what is changing today (the fragmentation of international law into a multiplicity of specialised regimes, the disintegration of the post-Westphalian order, the collapse of pre-existing hierarchies, the emergence and strengthening of new transnational actors, etc.).[447] The use of the constitutional mental framework could, according to such an analysis, be a minimal way of dealing with a more unstable and disturbing reality. As a simple extension of a pre-existing, familiar, and reassuring paradigm, the global constitutional discourse would amount to a psychoanalytic version of what Anne Peters calls a "compensatory constitutionalism".[448] As Martti Koskenniemi, for example, argues, "Most of the twentieth-century debate about Western modernity can be described as a succession of perceptions about ruptures, explosions, dispersions, fragmentations, normative collisions, followed by reassuring counter-narratives that explain the apparent chaos in terms of simple complexity, healthy pluralism, dynamism, freedom."[449] The discussion about digital constitutionalism is thus necessarily related to projects, and can carry three main messages.

6.2. Three possible messages

98. Understood as a "lens," a 'mindset'[450], a 'reading',[451] a "cipher,"[452] or a "prism",[453] constitutionalism represents a strategy to cabin raw phenomena into an intelligible whole. As such, it is embedded in theoretical and practical strategies. Three general orientations can be identified depending on the messages these strategies convey.

6.2.1. A message of hope

99. A first tendency sees digital constitutionalism rather enthusiastically as a means to confront the current evolutions. Discussing global constitutional discourse more generally, Anne Peters for example highlights some of its merits. The distance between traditional state constitutionalism and today's new forms of constitutionalism could lead to progress.[454] The critical and empowering potential of global constitutionalism, she argues, generally lies in the

[446] J. Frank, *Law and the Modern Mind*, 6th ed. (London: Stevens & Sons, 1949).
[447] International Law Commission, 'Report on the Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law', UN Doc. A/CN/4/L.682 (13th april 2006).
[448] A. Peters, 'Compensatory Constitutionalism: The Function and Potential of Fundamental International Norms and Structures', *Leiden Journal of International Law*, Vol. 19 (2006), pp. 579-610.
[449] M. Koskenniemi, 'Global Legal Pluralism: Multiple Regimes and Multiple Modes of Thought' (Harvard, March 2005) p. 3. available at : https://www.researchgate.net/publication/265477439_GLOBAL_LEGAL_PLURALISM_MULTIPLE_REGIMES_AND_MULTIPLE_MODES_OF_THOUGHT
[450] M. Koskenniemi 'Constitutionalism as Mindset: Reflections on Kantian Themes About International Law and Globalization', *Theoretical Inquiries in Law*, Vol. 8-1 (2007) ; E. Celeste, 'Terms of Service and Bills of Rights: New Mechanisms of Constitutionalisation in the Social Media Environment', *International Review of Law, Computers and Technology*, Vol. 33 (2019), pp. 122-138, p. 129.
[451] A. Peters 'Global Constitutionalism Revisited', available at : https://www.mpil.de/files/pdf4/Peters_Global_Constitutionalism3.pdf
[452] L. Viellechner, 'Constitutionalism as a Cipher: On the Convergence of Constitutionalist and Pluralist Approaches to the Globalization of Law', *Goettingen Journal of International Law*, Vol. 4 (2012), pp. 599-623.
[453] E. Celeste, 'Digital Constitutionalism: A New Systematic Theorisation', *International Review of Law, Computers & Technology*, Vol. 33 (2019), pp. 76-99, p. 92.
[454] A. Peters, 'The Merits of Global Constitutionalism', *Indiana Journal of Global Legal Studies*, Vol. 1 (2009), pp. 397-411.

fact that any claim by an actor to be constitutional necessarily prompts it to take a number of fundamental values seriously. It also invites the communities that are subject to its power to question the "constitutionality" of the regime imposed on them.[455] As much as it strengthens a given institutional structure, its constitutionalisation would therefore impose constraints on it, which would be commensurate with the constitutionalist ambition or project.

Claudia Padovani and Mauro Santaniello confirm that

> "Digital constitutionalism is an effort to bring political concerns and perspective back into the governance of the Internet, deeply informed by economic and technical rationalities; It is also an attempt to ground the political struggle over the Internet in explicit recognition of fundamental rights and democratic principles, and it differs from other political endeavors aiming to replace the private sector leadership in Internet-related decision-making with that of national governments and intergovernmental organizations."[456]

According to the same authors, although the documents purporting to protect human rights online are not without limitations, they testify to a promising constitutional dynamics:

> "The document-drafting initiatives considered here are not constitutions, nor do they mark out an ongoing process of Internet constitutionalization. From a formal point of view, they lack any of the structural elements of a modern constitution: a constituent power as a legitimate source of authority, a clear supreme position in the hierarchy of law, a legally binding effect on its subject matters, a special procedure to change or amend its content, and so on. However, from a substantive point of view, they encompass at least one of the two core elements of a constitution, i.e., an acknowledgment of fundamental rights and freedoms, and an institutional arrangement enabling collective action and limiting the exercise of power. Initiatives that can be considered efforts to promote digital constitutionalism are constitutional in this sense: they are political interventions for the establishment of rights, governance principles and limitations on power. They are pieces of a political conversation, traces of a discourse which 'provides the ideological context within which constitutions emerge and constitutionalization functions'."[457]

As a consequence, there seems to be much to hope for by relying on digital constitutionalism understood as a militant strategy to raise consciousness and attract attention to the potential threats that new technologies represent. Such a discourse helps create a form of awareness that is sensitive to the most basic values that are shared by the vast majority of contemporary liberal democracies. Using the digital constitutional framework contributes to the solidification of methods to confront the issue and encourage practices on the ground. The programmatic dimension of digital constitutionalism is by no means indifferent.[458] From the perspective of the *Begriffsgeschichte*, Reinhart Koselleck has described concepts like "constitution" or "constitutionalism" as "antithetical asymmetrical concepts."[459] Based on the revolutionary heritage they are part of, they convey an atmosphere of political struggle for freedom that tends to (morally) disqualify opposing concepts. Constitutional language seems intrinsically linked to the struggle of freedom against oppression, and today to human rights and the rule of law, so that it becomes

[455] A. Peters, 'Conclusions', in *The Constitutionalization of International Law,* J. Klabbers, A. Peters and G. Ulfstein (Oxford: Oxford UP, 2009), pp. 342-352.
[456] C. Padovani and Mauro Santaniello, 'Digital Constitutionalism: Fundamental Rights and Power Limitation in the Internet Eco-System', *The International Communication Gazette*, Vol. 80 (2018), pp. 295-301, p. 296.
[457] *Ibid.*, pp. 295-301, pp. 296-297.
[458] See e.g. E. Celeste, 'What is Digital Constitutionalism?' (2018), available at: https://www.hiig.de/en/publication/what-is-digital-constitutionalism/
[459] R. Koselleck, 'Zur historisch-politischen Semantik asymmetrischer Gegenbegriffe', in *Vergangene Zukunft: Zur Semantik geschichlicher Zeiten* (Frankfurt am Main: Suhrkamp, 1989), pp. 211-259, pp. 211, 213.

extremely difficult for anyone to wish for a reversal of constitutionalism. As Martin Loughlin put it in a recent book, "'Constitution' is an evaluative notion incorporating the positive and highly emotive properties of freedom, justice, and democracy."[460] The vernacular of state constitutionalism, when transposed to the digital environment, carries with it notions like human dignity, freedom, consent to obedience, due process, proportionality, limitation of power. It can be a relevant instrument to mobilise people, share views, and coordinate action to confront the big tech and their power.[461]

According to Nicholas P. Suzor, "We need a new constitutionalism – a new way of thinking about the power that technology companies wield and the discretion they exercise over our lives. To constitutionalize power means to impose limits on how rules are made and enforced. Constitutionalism is the difference between lawlessness and a system of rules that are fairly, equally, and predictably applied."[462] Although this rather optimistic perspective is the one that is most commonly embraced by digital constitutional scholars, it is not without limits, as it may appear a bit one-sided or naive.

6.2.2. A message of hegemony

100. Everyone can accept the empirical observation that the global constitutional discourse exists: claims, attitudes and institutional arrangements are described, expressed and justified through it. Whether this approach should be welcomed or distrusted nevertheless remains an open question for several authors and actors.[463] Indeed, several express fears that constitutionalism carries an inherent risk of conservatism.[464] By concealing the dimension of power and ensuring the apparent control of disorder, constitutional discourse would reinforce existing situations. The constitutional label could thus prove to be an instrument for reinforcing existing power structures, especially non-state ones, and for promoting the status quo and the reproduction of the same.[465] In the discussion about digital constitutionalism, this feature of constitutional discourse is not frequently acknowledged. Constitutions define mechanisms, control, but also empower, establish institutions and coordinate collective action.[466]

Indeed, insofar as they establish institutions for the pursuit of certain goals, constitutional arrangements must be preserved, and defined as more permanent than ordinary law. According to Jeffrey L. Dunoff, who focuses on the alleged constitutionalization of the World Trade Organization, "the constitutional turn in much of trade studies can be

[460] M. Loughlin, *Against Constitutionalism* (Cambridge, Mass., London: Harvard UP, 2022), 258 p., p. 38. See also *ibid*., p. 97.
[461] Nicolas P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives*, op.cit., p. 124.
[462] *Ibid*., p. 9.
[463] See esp. D. Scheiderman, 'A New Global Constitutional Order?', in *Comparative Constitutional Law* , T. Ginsburg and R. Dixon (Cheltenham, Northampton: E. Elgar, 2013), pp. 189-207.
[464] G. Tusseau, '¿Descolonizar el derecho constitucional?: algunas dudas y esperanzas sobre un proyecto', in *Constitucionalismo en clave descolonial* ,L. Estupiñán Achury and L. Balmant Emerique (Bogotá: Universidad Libre, 2022), 349 p., pp. 215-239.
[465] D. Kennedy, 'The Mystery of Global Governance' in *Ruling the World. Constitutionalism, International Law, and Global Governance,* J-.L. Dunoff and J.-P. Trachtman (Cambridge UP, 2009), pp. 59-60.
[466] L. Gill, D. Redeker and U.Gasser , 'Towards Digital Constitutionalism? Mapping Attemps to Craft an Internet Bill of Rights', *The International Communication Gazette*, Vol. 80 (2018), pp. 302-319, p. 304 ; . Á. Costello, 'Faux Ami? Interrogating the Normative Coherence of "Digital Constitutionalism" ', *Global Constitutionalism*, Vol. 12, (2023), pp. 326-349, pp. 334-335 ; S. Newton, 'Constitutionalism and Imperialism sub specie Spinozae', *Law and Critique*, Vol. 17 (2006), pp. 325-355.

understood as a mechanism for transferring controversial and potentially destabilising issues from the heated debate of ordinary politics to a less inclusive constitutional domain."[467] The extension of constitutional discourse, with its reassuring allure and the aura of guaranteed human rights, is thus sometimes explicitly seen as a process of legitimising certain established powers, immunising them from everyday political discussion, hindering democracy and "dampening real political engagement."[468]

The vernacular of constitutional law contributes to the establishment, rationalisation, stabilisation and legitimisation of that power. A constitution empowers authorities to achieve the goals it defines, and these goals in turn justify their actions.[469] As Eduardo García de Enterría notes on how the 1978 Constitution profoundly changed Spanish political society, "The legal constitution transforms naked power into legitimate legal power. The great theme of the struggle for the constitutional State has been the demand that the arbitrary government by men be replaced by the juridical government by laws."[470] The constitutionalisation of any object gives it self-sufficiency and autonomy vis-à-vis other normative institutions.[471] As such, this vocabulary is essential in the configuration of dialogical and heterarchical rather than hierarchical relationships between global legal actors. The mere application of the "constitutional label" to any legal regime reinforces the perception of its importance.

This was one of the reasons why, long before the impact of digitalisation could be imagined, Bentham was hostile to what is one of the cardinal elements of contemporary constitutionalism, constitutional rigidity. In his view, the promotion of the greatest happiness of the greatest number, which requires the political engagement and expression of individuals, requires that legislative authorities remain omni-competent and capable of amending constitutional norms through the ordinary legislative process. Affirmed as early as the time of the French Revolution, when Bentham was critical of the procedure for revising constitutional decrees established by Title VII of the Constitution of 1791,[472] this principle is one of the essential elements of his Constitutional Code, published in 1830.[473] In opposition to any mechanism intended to make the constitution more rigid, and thus implicitly in opposition to any mechanism limiting the omnipotence of the legislator, he asked: "What is the origin of this anxious eagerness to establish fundamental laws? It is the old illusion of being wiser than posterity, wiser than those who will have more experience; the old desire to rule over posterity, the old recipe for allowing the dead to chain the living."[474] Seeing it as an illustration of the "fallacy of the wisdom of the ancestors,"[475] he went on to affirm that "the doctrine of irrevocable fundamental laws, the artifice of reinforced majorities, and that of the

[467] J.-L. Dunoff, 'The Politics of International Constitutions: The Curious Case of the World Trade Organization ' in *Ruling the World. Constitutionalism, International Law, and Global Governance* J.-L. Dunoff, and J.-P. Trachtman (Cambridge: Cambridge UP, 2009) p. 179.
[468] I. Ward, 'Beyond Constitutionalism: The Search for a European Political Imagination', *European LJ*, Vol. 7 (2001), p. 28.
[469] M.-S. Kuo, 'The End of Constitutionalism as We Know It? Boundaries and the State of Global Constitutional (Dis)Ordering', *Transnational Legal Theory*, Vol. 1 (2010), pp. 329-369.
[470] E. García de Enterría, *La Constitución como norma y el Tribunal Constitucional*, 4th ed. (Madrid, Thomson : Civitas, 2006), p. 55.
[471] N. Walker, 'Beyond the Holistic Constitution?', in *The Twilight of Constitutionalism?*, P. Dobner and M. Loughlin (Oxford UP, 2010), p. 298.
[472] J. Bentham, 'Necessity of an Omnipotent Legislature', in *Rights, Representation, and Reform…*, J. Bentham, eds. P. Schofield, C. Pease-Watkin and C. Blamires (Oxford: Clarendon Press, 2002), pp. 263-288.
[473] J. Bentham, *Constitutional Code*, Vol. I, ed. F. Rosen and J.H. Burns (Clarendon Press, 1983), esp. pp. 41, 44-45.
[474] J. Bentham, 'Observations on the Draughts of Declarations of Rights', in *Rights, Representation, and Reform…*, op. cit., p. 183.
[475] J. Bentham, *Manuel de sophismes politiques*, tr. Fr. J.-P. Cléro (Bruylant, 1996), pp. 213-219.

division of assemblies so as to entrust a minority with the power of a majority, all stem from the same weakness and the same deviant passion."[476]

101. Such an analysis has recently been extended by a philosopher like Richard Bellamy, who advocates a 'political constitutionalism'.[477] In his view, constitutional rigidity limits a society's ability to deliberate. The argument that at least the formal framework for deliberation and the rights to participate in it must be rigid does not hold, since the framework and the rights themselves are the subject of political debate.[478] The latter must be as open as possible, and ensure the construction of a public culture of collective definition of the just social order. Constitutionalisation is therefore a fallacy designed to ensure the removal from political debate of such key issues as fundamental rights and the limitation of political power. The exclusion of these elements from political debate, even though their content is the subject of the most essential disagreements in any community, risks being arbitrary and favouring a specific form of pre-established political domination.[479] According to this line of analysis, contemporary constitutional inflation, which is illustrated in particular in the field of global law, bears witness to a disdain for the political energy of the people.[480]

One of the main implications and challenges of the movement of constitutionalisation and self-constitutionalisation of legal spheres is thus the question of the oligarchies of which it is the instrument.

102. For example, at the planetary level, as the "Third world approaches to international law" suggest, global constitutionalism may be the vehicle for the idea of an "emerging global imperial state,"[481] a discourse that is the instrument of a civilisational imperialism in which 20% of the world claims that its cognitive and normative models should apply to all.[482] Ultimately, according to the authors who belong to that trend, global constitutionalism in general and digital constitutionalism in particular would not establish the conditions for a random form of governance, but only for that of affluent Western countries, international organisations, law firms, multinational corporations, expert committees, arbitrators, judges, etc., all of whom belong to transnational networks of practitioners.[483] Therefore, it should come as no surprise, for example, that Alberto J. Sosa, speaking about the Área de Libre Comercio de las Américas, considers that

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[476] J. Bentham, 'Observations on the Draughts of Declarations of Rights', in *Rights, Representation, and Reform…*, op. cit., p. 186.
[477] R. Bellamy R., *Political Constitutionalism. A Republican Defence of the Constitutionality of Democracy* (Cambridge, Cambridge UP, 2007) ; A.J. McGann, 'The Tyranny of Supermajority: How Majority Rule Protects Minorities', *Journal of Theoretical Politics*, Vol. 16 (2004), pp. 56-70.
[478] R. Bellamy R., *Political Constitutionalism. A Republican Defence of the Constitutionality of Democracy,* op. cit., p. 178.
[479] *Ibid.*, pp. 145-175.
[480] R.D. Parker, '*Here the People Rule'. A Constitutional Populist Manifesto* (San Jose, New York, Lincoln, Shangai: toExcel ; Cambridge, Mass., London: Harvard UP, 1994), 133 p., pp. 66, 76, 98, 105, 107.
[481] B.S Chimni, 'International Institutions Today: An Imperial Global State in the Making', *European Journal of International Law*, Vol. 15 (2004), pp. 1-37.
[482] O. Yasuaki, 'A Transcivilizational Perspective on Global Legal Order in the Twenty-first Century: A Way to Overcome West-centric and Judiciary-centric Deficits in International Legal Thoughts', in *Towards World Constitutionalism. Issues in the Legal Ordering of the World Community,* R. St. J. Macdonald and D.M. Johnston (Leiden: M. Nijhoff, 2005) pp. 151-189.
[483] See A.-M. Slaughter, *A New World Order* (Princeton, Princeton UP, 2005) ; K.I. Kersch, 'The New Legal Transnationalism, the Globalized Judiciary, and the Rule of Law', *Washington University Global Studies Law Review*, Vol. 4 (2005), pp. 345-387 ; P. Allot, 'The Emerging International Aristocracy', *New York Journal of International Law and Politics*, Vol. 35 (2003), pp. 309-338 ; M. Keck and K. Sikkink, *Activists Beyond Borders. Advocacy Networks in International Politics* Ithaca, New York, Cornell UP, 1998.

> "Just as much as the WTO and NAFTA, the FTAA project is a global constitution oriented towards the market. [...] Unlike traditional international treaties or strictly inter-state trade agreements, global constitutions regulate multiple aspects that modify and impact on the daily lives of the peoples of the member states. The rights that global constitutions confer are for corporations, not for citizens. This entrusts a privileged group of legislators who represent hegemonic states and/or corporations with the production of norms that will govern the lives of present and future generations."[484]

There is a clear link between "disciplinary neo-liberalism" which imposes structural reforms on states, trade liberalisation, the guarantee of property rights, free trade, freedom of contract and investors' rights, thus ensuring a stable environment for capitalism, and global constitutionalism.[485]

This is all the more evident in the digital sphere, as new technologies are at the very heart of what is known as the "fourth industrial revolution."[486] They lead to the emergence of a new form of capitalism, called "surveillance capitalism."[487] Digital constitutionalisation also has to do with the more or less unquestioned domination of a Western perspective. As a decolonial approach suggests, the code comes from the West. The technology, as well as the data that feed algorithms express the hegemony of some specific cultures. They tend to replicate forms of exclusion that exist in the analog environment. But they also create new exclusions, and new (digital) forms of subalternation for those who have no voice.[488] For example, one should not only focus on the digital gap between those who have some literacy and those who do not, those who have the means to access the network and those who do not. It is not exceptional for the poorest categories to insist on remaining connected. This leads to deepen other problems, as they have to choose between the internet and food, health, or a shelter. From a more macro perspective, the digital environment is obviously dominated by American big firms, parts of the resources of which come from the services they provide to people belonging to other cultures. A risk of cultural uniformisation also appears.

For Raquel Fabiana Lopes Sparemberger and João Paulo Allain Teixeira, for example,

> "el colonialismo digital tiene sus raíces en el dominio de las *cosas* que constituyen los medios de computación en el mundo digital: software, hardware y conectividad de red. Esto incluye plataformas que actúan como *guardianes,* datos extraídos por proveedores de servicios intermediaries y estándares de la industria, así como el dominio privado de *propiedad intelectual* e *inteligencia digital*. El colonialismo digital se ha integrado, en gran medida, en las herramientas convencionales del capitalismo autoritario y el gobierno, incluso a partir de la explotación del trabajo, la captura de políticas y la planificación estratégica de las grandes corporaciones. Los impactos de esta integración, que involucra al capitalismo y al colonialism digital, se pueden percibir cuando en algunos países subdesarrollados o en desarrollo, la mayoría de los usuarios está atrapada con teléfonos inteligentes de baja capacidad, con poca holgura en el paquete de

[484] A.J. Sosa, 'El ALCA como constitución global y su probable impacto sobre la sociedad argentina', http://www.rebelion.org/hemeroteca/economia/040316sosa.htm, (accessed June 2015).
[485] S. Gill, 'The Constitution of Global Capitalism' (2000), available at : http://www.stephengill.com/erkko_inaugural_lecturefor_website.pdf, (accessed June 2015).
[486] K. Schwab, *The Fourth Industrial Revolution* (Geneva: World Economic Forum, 2016).
[487] S. Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (London: Profile Books, 2019).
[488] See G. C. Spivak, 'Can subaltern speak ?', in *Marxism and the Interprétation of Culture*, C. Nelson and L. Grossberg, Champaign (University of Illinois Press, 1988), pp. 271-313.

> datos y, aun así, al acceder a las redes sociales, sus datos ya han sido ingeridos como material prima por las grandes potencias imperialistas."[489]

103. Echoing similar sceptical preoccupations, Martin Loughlin considers that "Constitutionalism has become the primary medium through which an insulated elite, while paying lip service to the claims of democracy, is able to perpetuate its authority to rule."[490] This is why one may fear that digital constitutionalism be used as a mere "talisman," i.e. "a way of legitimising the arbitrariness of social media's governance, or even a simple instrument of marketing, taking advantage of the common positive preconceptions linked to the idea of a constitution."[491]

With respect to artificial intelligence, one of the key findings of the European Parliament relates to "Constitutionalising the EU approach to data governance":

> "We find that the existing regulatory framework in the EU for data governance runs the risk of becoming fragmented. While the focus on building digital markets is coherent, the different instruments involved create disjunctures in the way technological harms are conceptualised (i.e. through the lenses of data protection, competition and consumer protection) and in turn, this limits the equitable distribution of power both in terms of accessing and using data, and in making claims and seeking redress where necessary. This becomes especially visible in the more complex cases posed by platforms and by the deployment of AI systems, which may simultaneously violate rights, build monopolies and exert unfair trading practices, but which must be separately addressed according to these different logics. Approaching data governance through a constitutional lens – an overarching set of aims regarding rights and the equitable distribution of power – has the potential to provide a coherent path despite this complexity. […] In relation to constitutionalising the EU's legislative approach, the current diversity of legislative instruments under development could be seen as an opportunity to constitutionalise digital spaces. A constitutional law perspective offers a way to limit the power of both public and private actors performing public functions, and to make them accountable to the people. It also provides a language of rights as well as the opportunity to challenge excesses of public and private power. Adopting a framing of digital constitutionalism makes sense of the current diversity of new legislation by testing each for whether it can balance power, provide tools to challenge it, and offer frameworks to hold those with power accountable."[492]

Although human rights protection and power limitation are mentioned, the connotations of constitutionalisation that are crucial to this proposal are the ideas of rationalisation, uniformity, coherence, i.e. solidification of a legal regime. Even when considered from the perspective of human rights protection, digital constitutional discourse is not without weaknesses. The fundamental right to free speech is the most important factor that led to the algocracy and legitimised it. Freedom of contracts is the most crucial legal resource to secure the strength of private governance. In this respect, a form of "Lochner era

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[489] R.F.L. Sparemberger and J.P.A Teixeira, 'En Busca de una Teoría Constitucional Decolonial Aplicada al Ciber-Mundo: Reflexiones desde Silencios Digitales', in *Constitucionalismo en clave descolonial*, L. Estupiñán Achury and L. Balmant Emerique (Bogotá: Universidad libre, 2022), pp. 243-264, p. 255. See also M. Kwet, *La Amenaza Poco Sutil del Colonialismo Digital* (2021) ; S. Mohamed, MT. Png and W. Isaac, Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence. *Philos, Tecnol.*, Vol. 33 (2020), pp. 659-684, available at : https://doi.org/10.1007/s13347-020-00405-8 ; A. Duarte, 'A necessidade de uma compreensão decolonial da inteligência artificial para uma adequada regulação jurídica', in *Decolonização de conceitos sociojurídicos*, R. Coelho de Freitas (Fortaleza: Editoral Mucuripe, 2022), pp. 425-467 ; F. Balaguer Callejón, *La constitución del algoritmo* (Zaragoza: Fundación Manuel Giménez Abad, 2022) pp. 147-165.

[490] M. Loughlin, *Against Constitutionalism* (Cambridge, Mass., London: Harvard UP, 2022).

[491] E. Celeste, 'Terms of Service and Bills of Rights: New Mechanisms of Constitutionalisation in the Social Media Environment', *International Review of Law, Computers and Technology*, Vol. 33 (2019), pp. 122-138, p. 128.

[492] European Parliament, *Governing data and artificial intelligence for all. Models for sustainable and just data governance*, (European Parliamentary Research Service, Scientific Foresight Unit, July 2022), available at : https://www.europarl.europa.eu/RegData/etudes/STUD/2022/729533/EPRS_STU(2022)729533_EN.pdf

2.0" has emerged. Just like the Supreme Court of the United States struck down in 1905 a statute that limited the number of working hours in bakeries in the name of freedom of contract,[493] this very same right, understood in a somewhat decontextualised way, today secures the subordination of users. Transferring the constitutional vernacular to the digital environment can thus only have limited effects. For Luz Helena Orozco,

> "Finalmente, un […] peligro es que el constitucionalismo digital funcione como una simple estrategia de marketing. Tanto Estados como empresas recurren cada vez más al vocabulario constitucional para mejorar su imagen frente a los ciudadanos o posicionar sus servicios, sin que su adopción refleje ejercicios de auto-restricción, apertura de avenidas legales o experiencias de libertad, participación, privacidad, seguridad y dignidad. La buena prensa de la Constitución solo debe legitimar gobiernos y empresas que traduzcan normativamente sus valores, no así ensayos de retórica que creen la ilusión de limitar el poder corporativo y proteger los derechos fundamentales sin acciones concretas."[494]

This is also the kind of criticism Róisín Á. Costello voices against digital constitutionalism as it appears in the literature and as it is instrumentalised by Big tech. According to her, the intuitive appeal of constitutional discourse has led to its being used as a flag of convenience that justifies and legitimises private power much more than it limits it and orientates it towards the protection of fundamental public values:

> "The majority of the online governance structures that have adopted constitutionalist language to self-describe their efforts should be viewed not as constitutionalist, but rather as demonstrating the emergence of 'private policy' architectures. As part of these architectures, private actors rhetorically espouse a commitment to constitutional values that obscures the true contractual justification and function of the regulatory methods they employ, and in doing so benefit from the presumptive of normative legitimacy of constitutionalism without offering the equivalent protection that a constitutionalist system would ensure for those governed by it."[495]

Contrary to what she understands as the logic of constitutionalism, "digital constitutionalism" falls short of securing mutual accountability between a central authority and a subject. Under private law, the former is left with much more discretion to define the extent of its own power than in a constitutional context properly so called.[496] In a rather fallacious manner, "The label 'digital constitutionalism' can thus operate as a '*faux ami*' – a label that offers a superficial reassurance that is not borne out in practice."[497] The main result of this constitutional talk may very well be only the granting of superficial and undue legitimacy to private powers.

104. This may explain one major absence in contemporary digital constitutional discourse. It is related to the protection of fundamental rights. Many efforts have been made to adapt the content of traditional rights to the new environment, to imagine new forms of horizontal application for them, or even to design new, ad hoc, digital rights. The latter, more

[493] Lochner v. New York, 198 US 45 (1905).

[494] L.H. Orozco, 'Los peligros del constitucionalismo digital' (24th January 2023), available at : https://www.ibericonnect.blog/2023/01/los-peligros-del-constitucionalismo-digital/?utm_source=mailpoet&utm_medium=email&utm_campaign=BOLET%C3%8DN+INFORMATIVO%C2%A0

[495] R. Á. Costello, 'Faux Ami? Interrogating the Normative Coherence of "Digital Constitutionalism" ', *Global Constitutionalism*, Vol. 12, (2023), pp. 326-349, p. 329.

[496] *Ibid*., pp. 326-349, p. 339.

[497] *Ibid*., pp. 326-349, p. 340.

innovative proposals, lead either to a piecemeal addition of new prerogatives, in the form of Hohfeldian rights, duties, privileges, powers, no-rights, immunities, liabilities, and disabilities,[498] or to a more self-contained project of more structured declaration of fundamental rights 2.0 or 3.0.[499] In spite of the purpose as well as the ambition of these proposals, I have nowhere in the literature met Roberto M. Unger's suggestion for what he calls "destabilisation rights." On the contrary, contestability is sometimes mentioned as something the code puts an end to. It is reframed in a somewhat weaker form as the possibility to ask for a re-examination of one's situation or for a judicial (or judicialised) review of a previous decision.

Full-blown destabilisation rights, as they are designed by Unger, could be understood as part of a form of "digital militant democracy." It is as if contemporary societies, especially liberal democracies, had fallen in a trap similar to the one they confronted in the 1920s and 1930s. As conceptualised by Karl Mannheim[500] and Karl Loewenstein,[501] 'militant', 'committed' or 'combative' democracy[502] rejects traditional democracy's tolerance for its own enemies. Analysing fascism as a technique rather than an ideology, Loewenstein noted that

> "this technique can only be victorious under the extraordinary conditions offered by democratic institutions. Democracy and democratic tolerance have been used for their own destruction. Under the guise of fundamental rights and the rule of law, the anti-democratic machine could be constructed and set in motion legally. By deftly calculating that democracy could not, short of denying itself, deny any section of public opinion the full use of institutions such as freedom of expression, press, assembly and parliamentary participation, the promoters of fascism were able to systematically discredit the democratic order and render it dysfunctional by paralysing it until chaos set in."[503]

The reaction of democrats must be on the same level. According to him,

> "democracy is at war [...]. Constitutional scruples can no longer prevent restrictions on democratic fundamentals, with a view to ultimately protecting those fundamentals themselves.... If democracy believes in the superiority of its absolute values over the opportunistic platitudes of

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[498] W.N. Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, ed. W.W. Cook foreword A.L. Corbin, (Westport, Connecticut: Greenwood Press, 1978), 114 p.

[499] See supra, 4.2.2.

[500] See. K. Mannheim, *Diagnosis of Our Time. Wartime Essays of a Sociologist* (London: K. Paul, Trench, Trubner & co., 1943), esp. pp. 4-8.

[501] K. Loewenstein, 'Militant Democracy and Fundamental Rights, I', *The American Political Science Review*, Vol. 31 (1937) pp. 417-432 K. Loewenstein 'Militant Democracy and Fundamental Rights, II' *The American Political Science Review*, Vol. 31 (1937), pp. 638-658. See e.g. A. Simard, 'L'échec de la Constitution de Weimar et les origines de la "démocratie militante" en R.F.A.', *Jus politicum. Revue de droit politique*, no. 1 (2008), http://juspoliticum.com/article/L-echec-de-la-Constitution-de-Weimar-et-les-origines-de-la-democratie-militante-en-R-F-A-29.html (accessed January 2021).

[502] See e.g. J. Lameyer, *Streitbare Demokratie. Eine verfassungshermeneutische Untersuchung,* Schriften zum öffentlichen Recht, Bd. 336 (Berlin: Duncker & Humblot, 1978) 226 p. ; E. Jesse, *Streitbare Demokratie. Theorie, Praxis und Herausforderungen in der Bundesrepublik Deutschland* (Berlin: Colloquium Verlag, 1980), 115 p. ; H.-G. Jaschke, *Streitbare Demokratie und innere Sicherheit. Grundlagen, Praxis und Kritik* (Opladen, Westdeutscher Verlag, 1991), 333 p. ; C. Leggewie and H. Meier, *Republikschutz. Maßstäbe für die Verteidigung der Demokratie* (Reinbek bei Hamburg: Rowohlt, 1995), 381 p. ; H.-J. Papier and W. Durner 'Streitbare Demokratie', *Archiv des öffentlichen Rechts*, Vol. 128 (2003), pp. 340-371 ; A. Sajò, *Militant Democracy* (Utrecht: Eleven International Publishing, 2004), 262 p. ; M. Thiel, *Wehrhafte Demokratie. Beiträge übert die Regelungen zum Schutze der freiheitlichen demokratischen Grundordnung* (Tübingen: J.C.B. Mohr (Paul Siebeck), 2003), 475 p ; M. Thiel, *The « Militant Democracy » Principle in Modern Democracies* (Farnham, Burlington: Ashgate, 2009), 428 p. ; P. Niesen, 'Anti-Extremism, Negative Republicanism, Civic Society: Three Paradigms for Banning Political Parties. Part I', *German LJ*, Vol. 3 (2002), available at : https://www.cambridge.org/core/services/aop-cambridge-core/content/view/ED1610C59EB8909ADCD7FB1979C54772/S2071832200015157a.pdf/antiextremism_negative_republicanism_civic_society_three_paradigms_for_banning_political_parties_part_i.pdf (accessed January 2021) ; S. Tyulkin, *Militant Democracy. Undemocratic Political Parties and Beyond* (New York, Routledge, 2015), 227 p.

[503] K. Loewenstein, 'Militant Democracy and Fundamental Rights, I', *The American Political Science Review,* op. cit., pp. 423-424.

> fascism, it must be equal to the demands of the moment, and every possible effort must be made to rescue it, even at the risk and cost of violating fundamental principles."[504]

105. In this respect, one could first suggest that some especially sensitive realms, to be defined either on a case by case basis for each society or on a universal basis, must remain protected from the reach of the digital. In constitutional terms, like the "Gesetzvorbehalt," this would be a form of "analog reserve." Essentially due to the thinking of Otto Mayer,[505] this notion can be defined as follows. "A norm provides for a 'reservation' when it states that certain facts [...] (a certain matter) may or must be governed 'only' by a certain source, i.e. by that source and by no other. Thus, a) on the one hand, the source indicated is allowed to govern that area; b) on the other hand, any other source is forbidden to deal with that area. In this case, it is often said that there is a 'reservation of normative competence' in favour of the indicated source or that this source enjoys a 'reserved competence'."[506] For example, it is not uncommon for totally autonomous weapons or live facial recognition in the public space to be regarded with high suspicion. Neuronal autonomy[507] is also to be preserved by creating such excluded spaces. Some of the possible uses of AI, especially when they have to do with weak publics, are to be excluded.[508] According to this perspective, these social spheres should be reserved to fully and strictly human intervention.

106. In a more ambitious perspective, precisely because of the specific normativity of the digital, underlined for example by Lessig, Rouvroy, and Divers,[509] the lost right to disobey has to be re-established in the form of a right to destabilisation. It would take account of the claim to objectivity of AI and restore, voluntarily, a space for questions, which is the mark of the autonomous political subject. Roberto Unger's writings offer some innovative suggestions. Beyond relatively classical immunity rights, market rights and solidarity rights, he identifies the category of "destabilization rights". According to him,

> "Destabilization rights protect the citizen's interest in breaking open the large-scale organizations or the extended areas of social practice that remain closed to the destabilizing effects of ordinary conflict and thereby sustain insulated hierarchies of power and advantage. […] The destabilization entitlement ties the collective interest in ensuring that all institutions and practices can be criticized and revised to the individual interest in avoiding oppression. […] The primary respondents to the citizens who claim a right to have an organization or an area of social practice destabilized are the nongovernmental organizations or the actual individuals who are legally

[504] *Ibid.*, p. 432.
[505] O. Mayer, *Le droit administratif allemand*, Tome 1 (Giard et Brière, 1903), pp. 92-93. On this notion's history, see S. Fois, *La « riserva di legge ». Lineamenti storici e problemi attuali* (Milano, A. Giuffrè, 1963) ; J. Tremeau, *La réserve de loi. Compétence législative et constitution*, préf. L. Favoreu (Paris, Economica, Aix-en-Provence : P.U.A.M., coll. Droit public positif, 1997), 414 p., pp. 22-35.
[506] R. Guastini, 'Legge (riserva di)', *Digesto delle discipline pubblicistiche*, 4th ed., Vol. 9 (Torino, U.T.E.T., 1994), p. 164.
[507] See supra, 2.7.
[508] Commission nationale consultative des droits de l'homme, Avis relatif à l'impact de l'intelligence artificielle sur les droits fondamentaux A-2022-6 (7th April 2022), pp. 9-10, p.12, available at : https://www.cncdh.fr/publications/avis-relatif-limpact-de-lintelligence-artificielle-sur-les-droits-fondamentaux-2022-6#:~:text=Avis%20relatif%20%C3%A0%20l%E2%80%99impact%20de%20l%E2%80%99intelligence%20artificielle%20sur,pour%20un%20encadrement%20juridique%20ambitieux%20pour%20l%27intelligence%20artificielle.
[509] See supra, 2.10.

> competent, or actually able, to reconstruct the objectionable arrangements. The subsidiary respondent is the state, perhaps even a special branch of government."[510]

As he explains, destabilisation rights, which obviously target private as well as public domination, have a double dimension. Not only do they allow to dismantle hegemonic social organisations and practices, they also favour new, imaginative, forms of social experiment.[511] As he also explained in an earlier work,

> "The central idea of the system of destabilization rights is to provide a claim upon governmental power obliging government to disrupt those forms of division and hierarchy that, contrary to the spirit of the constitution, manage to achieve stability only by distancing themselves from the transformative conflicts that might disturb them."[512]

As he suggests, this should be the task of a specific power,[513] still to be invented, but for which some suggestions have already been made.[514] But these few elements of course fall short of a complete constitutional theorisation of this new form of power that seems especially wanting in the digital context.

These two perceptions of digital constitutionalism, optimistic and pessimistic, are not necessarily radically exclusive. They can very well compete with one another locally, i.e. depending on the device, the software, the AI, or the network. But even more fundamentally, one may wonder whether constitutional talk is not intrinsically beside the point.

6.2.3. Constitutionalism, in memoriam

107. As much as a manifestation of the (optimistic) limitation or the (pessimistic) strengthening of these spheres of power, their constitutionalisation could be interpreted as these spheres' swan song. As such, the insistence on constitutionalisation may be a symptom of the decay of threatened spheres of social power, which use precisely this rhetoric to maintain themselves. Such an attempt could appear desperate, as Ferdinand Lassalle's analysis suggests. According to him, the real constitution is not to be found in a document or a discourse, but in the actual relationship of material and social forces on which the content of the laws of the society concerned empirically depends. He draws the following conclusion:

> "whenever and wherever you come upon a party which has as its battle-cry the tremulous plea, 'Let us cling to the constitution!' – what can you deduce from this? I do not ask you about your *intentions* nor your *desires*. I ask only about your *thoughts*: what conclusions would you draw from such a spectacle?
>
> Well, gentlemen, without being prophets, you would say with certainty that this constitution is on its last legs; it is as good as dead; a few years more, and it will have ceased to exist.
>
> The reasons are simple. As long as a written constitution corresponds to the relation of forces in the nation, such cries will never be raised. Everyone stays three paces away from such a constitution and takes care not to approach closer. No one thinks of tangling with such a constitution; he will undoubtedly come away the worse for it if he does. Wherever the written constitution corresponds to the actually existing relation of forces, it will not occur to any party to take as its special battle-cry, "clinging" to it. When such a cry is heard, it is a certain and

[510] R. Mangabeira Unger, *False Necessity. Anti-Necessitarian Social Theory in the Service of Radical Democracy* (London, New York: Verso, 2004), p. 530.
[511] *Ibid*., pp. 530-535.
[512] R. Mangabeira Unger, 'The Critical Legal Studies Movement', *Harvard Law Review*, Vol. 96-3, (1983), pp. 561-675, p. 612.
[513] See e.g. R. Mangabeira Unger, *False Necessity. Anti-Necessitarian Social Theory in the Service of Radical Democracy,* op. cit.
[514] See supra, 5.2.2.

> incontrovertible sign that it is a *cry of terror*; in other words, it is proof that there is something in the written constitution which contradicts the real constitution, the existing relation of forces. And where-ever such a contradiction exists, the written constitution is inevitably doomed – neither God nor shrieks can help!
> It can be modified – to left or right – but it cannot survive."[515]

Just as the recourse to the constitutional paradigm is the last resort of a doctrine hampered by the mutations of its object, it can thus be understood as part of a form of desperate political survival strategy.

108. When applied simultaneously to the same object, these three interpretations of the project(s) that is (are) embedded in digital constitutionalism(s) can shed light on the tensions that run through it. As much as the constitutional discourses that the development of technologies attracts to it, the interpretation of this movement cannot spare itself the appearance of a certain chaos. If this may in some ways frighten, it is also a call to vigilance and, perhaps above all, to imagination.

[515] F. Lassalle, 'On the Essence of Constitutions' (Speech Delivered in Berlin, April 16, 1862), available at : https://www.marxists.org/history/etol/newspape/fi/vol03/no01/lassalle.htm

References

Aa. Vv., *Le dialogue des juges. Mélanges en l'honneur du président Bruno Genevois* (Paris : Dalloz 2009).

Aa. Vv. 'La gouvernance algorithmique', *Ethique publique*, Vol. 23-2 (2021).

Aa. Vv., 'Leader e/o partiti', *Rivista di digital politics* (2021), available at : https://www.digitalpolitics.it/numeri/#focus2f77-dbb7

Aa. Vv., 'Didattica Online', *Rivista di digital politics* (2021), available at : https://www.digitalpolitics.it/numeri/#focus2f77-dbb7

Aa. Vv., 'Amministrazione 5.0', *Rivista di digital politics* (2022), available at : https://www.digitalpolitics.it/numeri/#focus2f77-dbb7

A

A. Abat i Ninet, *Constitutional Crowdsourcing. Democratising Original and Derived Constituent Power in the Network Society* (Cheltenham: Edward Elgar, 2021).

Y. Adegoke, 'Alexa, Why does the brave new world of AI have all the sexism of the old one?', *The Guardian* (22th May 2019).

R. Albert, C. Bernal and J. Zaiden Benvindo, *Constitutional Change and Transformation in Latin America* (Oxford, Portland: Hart, 2019).

L. Alexander, *Freedom of Speech*, Vol. 2, (Brookfield, Ashgate, Dartmouth, 2000).

H. Allcott and M. Gentzkow, 'Social Media and Fake News in the 2016 Election', *Journal of Economic Perspectives*, Vol. 31, No. 2 (2017), pp. 211-236.

M.R. Allegri, 'Costituzionalizzare I neurodiritti?' (Associazione Italiana dei Costituzionalisti, 2023), available at : https://www.associazionedeicostituzionalisti.it/it/la-lettera/05-2023-costituzione-e-intelligenza-artificiale/costituzionalizzare-i-neurodiritti

P. Allot, 'The Emerging International Aristocracy', *New York Journal of International Law and Politics*, Vol. 35 (2003), pp. 309-338.

E. Alston, 'Constitutions and Blockchains: Competitive Governance of Fundamental Rule Sets', *Case Western Reserve Journal of Law, Technology & the Internet*, Vol. 11, No. 4 (2019), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3358434

E. Alston et al., 'Blockchain Networks as Constitutional and Competitive Polycentric Orders', *Journal of Institutional Economics*, Volume 18, Issue 5, (Cambridge UP, 2022), available at : https://www.cambridge.org/core/journals/journal-of-institutional-economics/article/blockchain-networks-as-constitutional-and-competitive-polycentric-orders/2DFD78A55D1D84EAE5D008B448531E1D

T. Álvarez Robles, *Crítica interdisciplinar de los sistemas de votación electrónica: revisando la democracia digital* (Madrid : Eolas, 2022).

J. Amankwah, 'Insurance Underwriting on the Basis of Telematics: Segmentation and Profiling', in *Artificial Intelligence and the Law*, J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 405-428.

F. Amoretti, *Electronic Constitution. Social, Cultural and Political Implications* (Information Science Reference, 2009).

A. Andhov, *Computational Law: The lawyer's guide to digital technology* (København: Karnov Group, 2022).

M. Andrejevic and N. Selwyn, *Facial Recognition* (Polity, 2022).

A. Aneesh, 'Global Labor: Algocratic Modes of Organization', *Sociological Theory*, Vol. 27 (2009), pp. 347-370.

Á. Þ. Árnason and C. Dupré, *Icelandic Constitutional Reform. People, Processes, Politics* (Routledge, 2021).

A.B. Arrieta et al., *Explainable Artificial Intelligence (XAI): Concepts, Taxonomies, Opportunities and Challenges toward Responsible AI* (2019), available at : https://arxiv.org/abs/1910.10045

A.A. Arroyo Cisneros, J.R. Nevarez del Rivero and L.F. Contreras Cortés, *Derechos humanos y nuevas tecnologías* (México, Tirant lo Blanch, 2023).

C. Arun, 'Facebook's Faces', *Harvard Law Review Forum*, Vol. 135 (2022), pp. 236-264.

L.F. Asscher, 'Code as Law: Using Fuller to Assess Code Rule's', in *Coding Regulation. Essays on the Normative Role of Information Technology*, E.J. Dommering and L.F. Asscher (TMC Asser Press, 2006), p. 61-90.

G.M. Azzoni, *Cognitivo e normativo: il paradosso delle regole tecniche* (Milano, Franco Angeli, 1991).

B

F. Balaguer Callejón, *La constitución del algoritmo* (Zaragoza: Fundación Manuel Giménez Abad, 2022).

F. Balaguer Callejón, *La constitución del algoritmo. El difícil encaje de la constitución analógica en el mundo digital* (2023), available at : https://www.fundacionmgimenezabad.es/es/derecho-publico-de-la-inteligencia-artificial

J.M. Balkin, 'Information Fiduciaries and the First Amendment', *UCDL Review* (2015), pp. 1183-1234.

J.M. Balkin, 'Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation', *UCDL Review* (2018), pp. 1149-1210.

J. M. Balkin, 'Free Speech is a Triangle', *Columbia Law Review* (2018), pp. 2011-2055.

J.M. Balkin, 'The Fiduciary Model of Privacy', *Harvard LR* (2020), pp.11-32.

J. Barata Mir and M. Bassini, 'Freedom of Expression in the Internet. Main Trends of the Case Law of the European Court of Human Rights', in *The Internet and Constitutional Law: The Protection of Fundamental Rights and Constitutional Adjudication in Europe*, O. Pollicino and Graziella Romeo (London: Routledge, 2016), pp. 71-93.

R. Barroso, 'Hate, Lies, and Democracy', (Int'l J. Const. L. Blog, January 2022), available at: http://www.iconnectblog.com/hate-lies-and-democracy/

M. Barrio Andrés, 'Retos y desafíos del Estado algorítmico de derecho' (Analisis del Real instituto Elcano, 9th June 2020), available at : https://www.realinstitutoelcano.org/analisis/retos-y-desafios-del-estado-algoritmico-de-derecho/

C. Baselga-Garriga, P. Rodriguez and R. Yuste, 'Neuro Rights. A Human Rights Solution to Ethical Issues of Neurotechnologies', in *Protecting the Mind* (Springer, 2022), pp. 157-161.

M. Bassini, 'Fundamental Rights and Private Enforcement in the Digital Age', *European Law Journal,* Vol. 25 (2019), pp. 182-197.

M. Bassini and O. Pollicino, *Verso un Internet Bill of Rights* (Roma, Aracne, 2015).

E. Bayamlioğlu, 'The right to contest automated decisions under the General Data Protection Regulation: Beyond the so-called "right to explanation" ', *Regulation & Governance*, Vol. 16, no. 4 (2022), pp. 1058-1078.

A. Blandin-Obernesser, *Droits et souveraineté numérique en Europe* (Bruxelles: Bruylant, 2016).

F. Bell, L. Bennett Moses, M. Legg, J. Silove and M. Zalnieriute, *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (Australasian Institute of Judicial Administration, 2022), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4162985

R. Bellamy R., *Political Constitutionalism. A Republican Defence of the Constitutionality of Democracy* (Cambridge, Cambridge UP, 2007).

P. Bellanger, *La souveraineté numérique* (Paris : Stock, 2014).

M. Belov, *Global Constitutionalism and Its Challenges to Westphalian Constitutional Law* (Oxford: Hart Publishing, 2018).

O. Ben-Dor, *Constitutional Limits and the Public Sphere. A Critical Study of Bentham's Constitutionalism* (Oxfort, Portland : Hart Publishing, 2000).

B. Benhamou, 'Les dimensions internationales de la souveraineté numérique', *Nouveaux Cahiers du Conseil constitutionnel*, no. 57 (2017), pp. 87-92.

Y. Benkler, R. Faris and H. Roberts, *Network Propaganda. Manipulation, Disingormation, and Radicalization in American Politics* (Oxford UP, 2018).

J. Bentham, *A View of the Hard Labour Bill*, in *The Works of Jeremy Bentham,* J. Bowring, Vol. IV (Edinburgh), pp. 1-35.

J. Bentham, *Principles of Penal Law*, in *The Works of Jeremy Bentham*, J. Bowring, Vol. I (Edinburgh), pp. 365-580..

J. Bentham, 'Principes du code pénal' in *Traité de législation civile et pénale* tr. Fr. E. Dumont (Paris, 1830), pp. 381-398.

J. Bentham, 'Vue générale d'un corps complet de législation', in *Traité de législation civile et pénale*, tr. Fr. E. Dumont (Paris, 1830).

J. Bentham, *An Introduction to the Principles of Morals and Legislation,* ed. J.H. Burns and L.A. Hart (London: The Athlone Press, 1970).

J. Bentham, *A Comment on the Commentaries* and *A Fragment on Government* (London: The Athlone Press, 1977).

J. Bentham, *Constitutional Code*, Vol. I, ed. F. Rosen and J.H. Burns (Clarendon Press, 1983).

J. Bentham, *First Principles Preparatory to Constitutional Code*, ed. P. Schofield (1989).

J. Bentham, *Securities Against Misrule and Other Writings for Tripoli and Greece*, ed. P. Schofield (1990).

J. Bentham*, The Panopticon Writings* (London, Verso, coll. Wo es war, 1995).

J. Bentham, *Manuel de sophismes politiques*, tr. Fr. J.-P. Cléro (Bruylant, 1996).

J. Bentham, *Rights, Representation, and Reform…*, eds. P. Schofield, C. Pease-Watkin and C. Blamires (Oxford: Clarendon Press, 2002)

J. Bentham, *Chrestomatia*, trad. fr., Intro. Cléro J.-P. (Paris, Cahiers de l'Unebévue, 2004).

J. Bentham, *Of the Limits of the Penal Branch of Jurisprudence,* ed. P. Schofield (Oxford: Oxford UP, 2010).

J. Bentham, *On the Liberty of the Press, and Public Discussion and Other Legal and Political Writings for Spain and Portugal*, ed. C. Pease-Watkin and P. Schofield (2012).

J. Bentham, *The Book of Fallacies*, ed. P. Schofield (Oxford: Clarendon Press, 2015).

J. Bentham, *Preparatory Principles,* ed. P. Schofield (2016).

A. Berg, C. and M. Novak, 'Blockchains and Constitutional Catallaxy', *Constitutional Political Economy*, Vol. 31 (2020), pp. 188-204.

B.T. Bergsson and P. Blokker, 'The Constitutional Experiment in Iceland', in *Verfassungsgebung un konsolidierten. Neubeginn oder Verfall eines Systems?*, K. Pocza (Baden-Baden, 2013).

C. Bernal Pulido, *Du néoconstitutionnalisme en Amérique latine* (Paris: L'Harmattan, 2015).

L.F.M. Besselink, *A Composite European Constitution*, (Groningen : Kluwer, 2007).

J. Black, 'Critical Reflections on Regulation', *Australian Journal of Philosophy* (2002), pp. 1-27.

P. Boddington, *AI Ethics: A Textbook* (Springer, 2023).

J. Bodin, *Les six livres de la République* (Farmington Hills, Michigan : Thomson Gale, 2005).

L. C. Bollinger, *The Tolerant Society. Freedom of Speech and Extremist Speech in American* (New York: Oxford UP, 1988).

J. Bonnet and P. Türk, 'Le numérique : un défi pour le droit constitutionnel', *Nouveaux Cahiers du Conseil constitutionnel*, no. 57 (2017), pp. 13-24.

D. Bourcier and P. De Filippi, 'Transparence des algorithmes face à l'open data : quel statut pour les données d'apprentissage?', *Revue française d'administration* publique (2018), pp. 525-537.

J. Bousquet, T. Carrère and S. Hammoudi, *L'action publique algorithmique : risques et* perspectives (Mare & Martin, 2023).

O. Bracha and F. Pasquale, 'Federal Search Commission? Access, Fairness, and Accountability in the Law of Search', *Cornell Law Review*, (September 2008), pp. 1-69.

K. Braun and C. Kropp, *In digitaler Gesellschaft. Neukonfigurationen zwischen Robotern, Algorithmen und Usern* (Bielefeld: Transcript Verlag, 2021), available at : https://www.transcript-verlag.de/media/pdf/a1/ee/13/oa9783839454534.pdf

E. Brousseau, M. Marzouki and C. Meadel, *Governance, Regulations and Powers* (New York: Cambridge UP, 2012).

R. Brownsword, *Global Governance and the Quest for Justice*, Vol. 4 (Hart Publishing, 2004).

R. Brownsword, 'Technological Management and the Rule of Law', *Law Innovation and Technology*, Vol. 8 (2016), pp. 100-140.

B. Brunessen, 'La souveraineté numérique européenne: une « pensée en acte »?', *Revue trimestrielle de droit européen* (2021).

A. Brunon-Ernst, 'Les métamorphoses panoptiques : de Foucault à Bentham', in *Cahiers critiques de philosophie*, no. 4 (2007), pp. 61-71.

A. Brunon-Ernst, *Beyond Foucault. New Perspectives on Bentham's Panopticon* (Ashgate, 2012).

A. Bryk, *The Origins of Constitutional Government. Higher Law and the Sources of Judicial Review* (Wydawnictwo uniwersytetu jagiellońskiego, 1999).

W. Buelens, 'Robots and AI in the Healthcare Sector: Potential Existing Legal Safeguards Against A(n) (Un)justified Fear for "Dehumanisation" of the Physician-Patient Relationship', in *Artificial Intelligence and the Law,* J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 487-520.

L. Burgorgue-Larsen, *El diálogo judicial. Máximo desafío de los tiempos jurídicos modernos* (México: Porrúa Instituto mexicano de derecho procesal constitucional, 2013).

L. Burguera Ameave, *La construcción social de la identidad colectiva en Internet. El derecho a la memoria digital* (Cizur Menor: Thomson Reuters-Aranzadi, 2021).

L.A. Bygrave, 'Data protection pursuant to the right to privacy in human rights treaties', *International Journal of Law and Information Technology*, Vol. 6-3 (1992), pp. 247-284.

L. A. Bygrave, *Internet Governance by Contract* (Oxford: Oxford University Press, 2015).

C

R. Calo, 'Privacy, Vulnerability, and Affordance', *DePaul Law Review*, Vol. 66 (2016), pp. 591-604.

G. della Cananea, *Due Process of Law Beyond the State* (Oxford: Oxford UP, 2016).

B. Cantwell Smith, *The Promise of Artificial Intelligence: Reckoning and Judgment* (Cambridge: MIT Press, 2019).

M. Carbonell, *Teoría del neoconstitucionalismo. Ensayos escogidos* (Madrid: Trotta, 2007), 334 p.

D. Cardon, *La démocratie internet. Promesses et limites* (Paris, Seuil, 2010).

C. Casonato, 'Intelligenza artificiale e diritto costituzionale : prime considerazioni', *Diritto pubblico comparato ed europeo* (2019), pp. 101-130.

J. A. Catañeda Méndez, 'El efecto horizontal de los derecho sfundamentales en el contexto de constitucionalización global de régimen jurídico privado digital', *Revista jurídica Mario Alario d'Filippo*, Vol. 8, no. 15 (2015), pp. 29-47.

D. Cardon, *Culture numérique* (Paris: Presses de Sciences Po, 2022).

R. Cavallo Perin and D.-U. Galetta, *Il diritto dell'amministrazione pubblica digitale* (G.Giappichelli editore, 2020).

C. Caruso and C. Valentini, *Grammatica del costituzionalismo* (Bologna, Il Mulino, 2021).

E. Celeste, 'Digital Constitutionalism. Mapping the Constitutional Response to Digital Technology's Challenges', *HIIG Discussion Paper Series*, No. 2018-2 (July 2018), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3219905

E. Celeste, 'What is Digital Constitutionalism?' (2018), available at: https://www.hiig.de/en/publication/what-is-digital-constitutionalism/

E. Celeste, 'Digital Constitutionalism: A New Systematic Theorisation', *International Review of Law, Computers & Technology*, Vol. 33 (2019), pp. 76-99.

E. Celeste, 'Terms of Service and Bills of Rights: New Mechanisms of Constitutionalisation in the Social Media Environment', *International Review of Law, Computers and Technology*, Vol. 33 (2019), pp. 122-138.

E. Celeste, *Costituzionalismo digitale e piattaforme: verso una costituzionalizzazione della lex digitalis* (2021), available at : http://doras.dcu.ie/27787/1/Celeste_Constitutionalismo%20digitale%20e%20piattaforme_AM.pdf.

E. Celeste, 'Digital Sovereignty in the EU: Challenges and Future Perspectives', in *Data Protection beyond Borders: Transatlantic Perspectives on Extraterritoriality and Sovereignty*, F. Fabbrini, E. Celeste and J. Quinn (Hart, 2021), pp. 211-228.

E. Celeste, 'The Constitutionalisation of the Digital Ecosystem: Lessons From International Law', in *International Law and the Internet,* M. Kettemann, R. Kunz, A.J. Golia (Nomos: Baden-Baden, 2021) pp. 1-19, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3872818

E. Celeste, *Digital Constitutionalism: The Role of Internet Bills of Rights* (Abingdon, New York: Routledge, 2023).

A. Cerrillo Martinez, *La transformacion digital de la administracion local* (Madrid : Fundacion Democracia y gobierno local, col. Claves, 33, 2021).

V. Champeil-Desplats, 'Les nouveaux commandements du contrôle de la production législative', *Mélanges en l'honneur de Michel Troper*, (Paris : Economica, 2006), pp. 267-280.

V. Champeil-Desplats, 'N'est pas normatif qui peut. L'exigence de normativité dans la jurisprudence du Conseil constitutionnel', *Cahiers du Conseil constitutionnel*, n° 21 (2007), pp. 93-101.

A. Chander and H. Sun, 'Sovereignty 2.0', *Vanderbilt Law Review,* Vol. 55 (2023), pp. 283-324, available at: https://scholarship.law.vanderbilt.edu/vjtl/vol55/iss2/2

B.S Chimni, 'International Institutions Today: An Imperial Global State in the Making', *European Journal of International Law*, Vol. 15 (2004), pp. 1-37.

E. Cifuentes Muñoz, *La eficacia de los derecho fundamentales frente a particulares* (México : UNAM, Corte de Constitucionalidad de Guatemala, 1998).

V. Cinelli and A. Manrique Gan, 'El uso de programas de analisis predictivo en la inteligencia policial. Una comparative europea', *Revista de estudios en seguridad internacional*, Vol. 5 (2019), pp. 1-19.

D. K. Citron, 'Technological Due Process', *Washington University Law Review*, Vol. 85 (2008), pp. 1243-1313.

D. K. Citron, 'Cyber Civil Rights', *Boston University LR*, Vol. 89 (2009), pp. 61-125.

D.K. Citron, *The fight for privacy: protecting dignity, identity and love in the digital age* (2022).

D.K. Citron and F. Pasquale, 'The Scored Society: Due Process for Automated Predictions', *Washington LR*, Vol. 89 (2014), pp. 1-33.

A. Clapham, *Human Rights in the Private Sphere* (Oxford: Oxford UP, 1993).

L. Cluzel-Métayer, C. Prébissy-Schnall and A. Sée, *La transformation numérique du service public : une nouvelle crise ?* (Mare & Martin, 2021).

M. Coeckelbergh, *The Political Philosophy of Artificial Intelligence* (Cambridge: Polity, 2022).

C. Coglianese, *E-rulemaking: Information Technology and the Regulatory Process: New Directions in Digital Government Research*, (Faculty Scholarship at Penn Law, 2004), available at : https://scholarship.law.upenn.edu/faculty_scholarship/2633/

C. Coglianese and L.M. Ben Dor, *AI in Adjudication and Administratio*, (Faculty Scholarship at Penn Law, 2020).

C. Coglianese and D. Lehr, 'Transparency and Algorithmic Governance', *American University Administrative Law Review*, Vol. 71 (2019), pp. 1-56.

C. Cohen, 'Twitter confronté à la fuite des annonceurs en France', *Le Figaro* (27th March 2023), available at : https://www.lefigaro.fr/medias/twitter-confronte-a-la-fuite-des-annonceurs-en-france-20230327

L. Cometti, ' « J'ai demandé à ChatGPT de rédiger un amendement » : comment l'intelligence artificielle s'invite à l'Assemblée nationale' (France Infos, 30 June 2023), available at : https://www.francetvinfo.fr/internet/intelligence-artificielle/j-ai-demande-a-chatgpt-de-rediger-un-amendement-comment-l-intelligence-artificielle-s-invite-a-l-assemblee-nationale_5903954.html#xtor=CS2-765-[autres]-

J. Constine, 'Google Destroys Rap Genius' Search Rankings As Punishment For SEO Spam, But Resolution in Progress' (TechCrunch, December 25th 2013), available at : http://techcrunch.com/2013/12/25/google-rap-genius/

A.G. Conte, 'Materiali per una tipologia delle regole', *Materiali per una storia della cultura giuridica*, Vol. 15 (1985), pp. 345-368.

A.G.Conte, 'Phénoménologie du langage déontique', in *Les fondements logiques de la pensée normative. Actes du Colloque de Logique déontique de Rome (les 29 et 30 avril 1983)*, G. Kalinowski and F. Selvaggi (Roma: Editrice pontifica Università Gregoriana, 1985), pp. 179-193.

A.G. Conte, 'Eidetic-Constitutive Rules', in *Law and Language. The Italian Analytical School*, A. Pintore and M. Jori (Liverpool: Deborah Charles Publications, 1997), pp. 133-146.

F. Contini and D. Reiling, 'Double normalization: When procedural law is made digita'l, *Oñati Socio-Legal Series*, Vol. 12-3 (2022), pp. 654-688, available at : https://opo.iisj.net/index.php/osls/article/view/1362/1617

Z. Corbyn, [Interview] : Prof. Nita Farahany : 'We need a new human right to cognitive liberty' (The Guardian, March 2023), available at : https://www.theguardian.com/science/2023/mar/04/prof-nita-farahany-we-need-a-new-human-right-to-cognitive-liberty

F. Corrêa Souza de Oliveira and L. Luiz Streck, 'El nuevo constitucionalismo latinoamericano : reflexiones sobre la posibilidad de construir un derecho constitucional común', *Anuario iberoamericano de justicia constitucional*, no. 18 (2014), pp. 125-153.

C. Cortés, 'Derecho al olvido: entre la protección de datos, la memoria y la vida personal en la era digital' (Centro de Estudios en Libertad de Expresión y Acceso a la Información –CELE- de la Facultad de Derecho de la Universidad de Palermo), available at : https://www.palermo.edu/cele/pdf/DerechoalolvidoiLEI.pdf

R. Á. Costello, 'Faux Ami? Interrogating the Normative Coherence of "Digital Constitutionalism" ', *Global Constitutionalism*, Vol. 12, (2023) pp. 326-349.

L. Cotino Hueso and J. Castellanos, Claramut,*Transparencia y explicabilidad de la Inteligencia Artificial* (Tirant lo Blanch : 2023).

N. Couldry and U.A. Mejias, *The Costs of Connection. How Data is Colonizing Human Life and Appropriating it for Capitalism* (Stanford: Stanford UP, 2019).

D. Cowan, 'Estonia: a Robotically Transformative Nation', The Robotics Law Journal (2019), available at : https://roboticslawjournal.com/global/estonia-a-robotically-transformative-nation-28728942

K. Crawford and J. Schultz, 'Big Data and Due Process: Towards a Framework to Redress Predictive Privacy Harms', *Boston College Law Review*, Vol. 55 (2014), pp. 93-128.

P. Cruz Villalón, *La constitucion inedita. Estudios ante la constitucionalización de Europa* (Madrid : Trotta, 2004).

M.-F. Cuellar and A.Z. Huq, 'Economies of Surveillance', *Harvard LR*, Vol. 133 (2020), pp. 1280-1336.

D

C. Daelman, 'AI Through a Human Rights Lens. The Role of Human Rights in Fulfilling AI's Potential', in *Artificial Intelligence and the Law*, J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 123-149.

A. Daly al., 'AI, Governance and Ethics. Global Perspectives', in *Constitutional Challenges in the Algorithmic Society*, Hans-W. Micklitz, Oreste Pollicino et al. (Cambridge: Cambridge UP, 2021), pp. 182-201.

J. Danaher, 'Rule By Algorithm? Biga Data and the Threat of Algocracy', *Philosophical Disquisitions* (26th January 2014).

J. Danaher, 'The Threat of Algocracy. Reality, Resistance and Accommodation', *Philosophy and Technology*, Vol. 29 (2016), pp. 245-268.

P. De Hert and D. Kloza, 'Internet (Access) As a New Fundamental Right: Inflating the Current Rights Framework?' *European Journal of Law and Technology*, Vol. 3-3 (2012), available at : www.ejlt.org/index.php/ejlt/article/view/123/ 268 (accessed November 2021).

K. De Oliverai Veras and G. Barreto, 'A inteligência artificial no setor público: uma análise do projeto victor no poder judiciário', IX Encontro Brasileiro de Administração Pública (SBAP, 2022), pp.1-19, available at : https://sbap.org.br/ebap-2022/665.pdf

P. De Vega García, 'La eficacia frente a particulares de los derechos fundamentales (la problemática de la *Drittwirkung der Grundrechte*)', *Pensamiento Constitucional*, Vol. 9, no. 9 (2003,) pp. 23-43.

S. Demková, *Automated Decision-Making and Effective Remedies: The New Dynamics in the Protection of EU Fundamental Rights in the Area of Freedom, Security and Justice* (Cheltenham: Edward Elgar, 2023).

S. Desmoulin-Canselier and D. Le Métayer, *Décider avec les algorithmes. Quelle place pour l'Homme, quelle place pour le droit* (Paris : Dalloz, *?*, coll. Les Sens du droit, 2020).

R. Devillé, N. Sergeyssels and C. Middag, 'Basic Concepts of AI for Legal Scholars', in *Artificial Intelligence and the Law,* J. De Bruyne, C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 1-22.

L. Diver, *Digisprudence. Code as Law Rebooted* (Edinburgh : Edinburgh University Press, 2022).

R. Domingo Oslé, *¿Qué es el Derecho global?,* 2nd edn (Thomson, 2008).

E. Douek, 'Facebook's 'Oversight Board': Move Fast With Stable Infrastructure and Humility', *North Carolina Journal of Law and Technology*, Vol. 21 (2019), pp. 1-78.

E. Douek, 'What Kind of Oversight Board Have You Given Us?' (University of Chicago Law Review Online, 2020), available at : https://lawreviewblog.uchicago.edu/2020/05/11/fb-oversight-board-edouek/

R. Dowd, *The Birth of Digital Human Rights. Digitized Data Governance as a Human Rights Issue in the EU* (Springer, 2022).

M.W. Doyle, 'The UN Charter – A Global Constitution?', in *Ruling the World. Constitutionalism, International Law, and Global Governance* J.-L. Dunoff, and J.-P. Trachtman (Cambridge : Cambridge UP, 2009) pp. 113-132.

T. Dragu and Y. Lupu, 'Digital Authoritarianism and the Future of Human Rights', *International Organization*, Vol. 75-4 (2021), pp. 991-1017.

J. Dressel and H. Farid, 'The Accuracy, Fairness, and Limits of Predicting Recidivism', *Science Advances*, Vol. 4 (2018), pp.1-5, available at : https://www.science.org/doi/10.1126/sciadv.aao5580

D. Dror-Shpoliansky and Y. Shany, 'It's the End of the (Offline) World as We Know It: From Human Rights to Digital Human Rights – A proposed Typology', *European Journal of International Law*, Vol. 32 (2021), pp. 1249-1282.

A. Duarte, 'A necessidade de uma compreensão decolonial da inteligência artificial para uma adequada regulação jurídica', in *Decolonização de conceitos sociojurídicos*, R. Coelho de Freitas (Fortaleza: Editoral Mucuripe, 2022), pp. 425-467.

J. Duberry, *Artificial Intelligence and Democracy. Risks and Promises of AI-Mediated Citizen–Government Relations* (Cheltenham: Edward Elgar, 2022).

J.-L. Dunoff, and J.-P. Trachtman*, Ruling the World. Constitutionalism, International Law, and Global Governance* (Cambridge: Cambridge UP, 2009).

P.-M. Dupuy, 'The Constitutional Dimension of the Charter of the United Nations Revisited', *Max Planck Yearbook of United Nations Law*, Vol. 1 (1997), pp. 1-33.

F. Duverger, 'Crise sanitaire et dématérialisation de la fonction législative au Parlement européen', in *Gouverner et juger en période de crise*, X. Dupré de Boulois, and X. Philippe (Paris: Mare & Martin, 2023) pp. 37-51.

R. Dworkin, *Taking Rights Seriously* (Cambridge: Harvard University Press, 1977).

N. Dyer-Witheford, A.M. Kjøsen and J. Steinhoff, *Inhuman Power* (2019).

E

F.H. Easterbrook, 'Cyberspace and the Law of the Horse', *University of Chicago Legal Forum,* no. 207 (1996), pp. 207-208.

M. Ebers, 'Regulating AI and Robotics: Ethical and Legal Challenges', in *Algorithms and the Law*, M. Ebers and S.N. Navarro (Cambridge: Cambridge UP, 2019), pp. 1-51.

C. Eisenmann, 'Le contrôle juridictionnel des lois en France', *in C. Eisenmann, Écrits de théorie du droit, de droit constitutionnel et d'idées politiques*, C. Leben, (Paris : Éditions Panthéon-Assas, coll. Les introuvables, 2002) pp. 525-541.

Z. Elkins, T. Ginsburg and J. Melton, *The Endurance of National Constitutions*, (Cambridge, New York: Cambridge University Press, 2009).

E. García de Enterría, *La Constitución como norma y el Tribunal Constitucional*, 4th ed. (Madrid, Thomson : Civitas, 2006).

R. Epstein and R. E. Robertson, 'Democracy at Risk: Manipulating Search Rankings Can Shift Voters' Preferences Substantially Without Their Awareness' (American Institute for Behavioral Research and Technology, 2013), available at : http://aibrt.org/downloads/EPSTEIN_and_Robertson_2013-Democracy_at_Risk-APS-summary-5-13.pdf

I. Escobar Fornos, *Los derechos humanos y el control del poder privado* (Bogotá, Instituto de estudios constitucionales Carlos Restrepo Piedrahita, 2001).

I. Escobar Fornos, 'Las partes en el amparo constitucional', in *Estudios jurídicos*, Vol. 2 (Centro de documentación e información judicial, 2010) pp. 187-206.

A.J. Estrada, 'Los tribunales constitucionales y la eficacia entre particulares de los derechos fundamentales', in *Teoría del neoconstitucionalismo. Ensayos escogidos,* M. Carbonell (Madrid: Trotta, 2007), pp. 121-157.

M.J. Pérez Estrada, *Fundamentos jurídicos para el uso de la inteligencia artificial en los órganos judiciales* (Valencia: Tirant lo Blanch, 2022).

V. Eubanks, *Automating Inequality: How High-tech Tools Profile, Police, and Punish the Poor* (New York, Picador: St. Martin's Press, 2019).

F

V. Faggiani, 'El derecho a un proceso con todas las garantías ante los cambios de paradigma de la inteligencia artificial', *Teoría y realidad constitucional*, no. 50 (2022), pp. 517-546.

N. A. Farahany, *The Battle for Your Brain: Defending the Right to Think Freely in the Age of Neurotechnology* (St. Martin's Press, 2023).

G. Fasano, 'Le decisioni automatizzate nella pubblica amministrazione: tra esigenze di semplificazione e trasparenza algoritmica', Medialaws, no. 3 (2019), available at : https://www.medialaws.eu/rivista/le-decisioni-automatizzate-nella-pubblica-amministrazione-tra-esigenze-di-semplificazione-e-trasparenza-algoritmica/

I. Fassassi, 'Les effets des réseaux sociaux dans les campagnes électorales américaines', *Nouveaux Cahiers du Conseil constitutionnel*, n° 57 (2017), pp. 69-86.

B. Fassbender, *The United Nations Charter as the Constitution of the International Community* (Leiden: M. Nijhoff, 2009).

F. Fabbrini and M. Poiares Maduro, 'Supranational Constitutional Courts', *Max Planck Encyclopedia of Comparative Constitutional Law* (2016), available at: https://oxcon.ouplaw.com/view/10.1093/law-mpeccol/law-mpeccol-e676?prd=MPECCOL (last consulted January 2021).

J. Fedtke and D. Oliver, *Human Rights and the Private Sphere. A Comparative Study* (New York: Routledge-Cavendish, 2007).

C. Fernández-Aller, C. Roveri and S. Nardini, 'El uso ético de la inteligencia artificial y las neurotecnologías', in *Derechos digitales en Iberoamérica: situación y perspectivas* (Madrid: Fundación Carolina y Telefónica, 2023), pp. 43-80.

V. Ferreres Comella, *The Constitution of Arbitration* (Cambridge, New York: Cambridge UP, 2021).

A. Fischer-Lescano, *Globalverfassung. Die Geltungsbegründung der Menschenrechte*, (Weilerswist: Velbrück Wissenschaft, 2005).

M. Fierens, S. Rossello and E. Wauters, 'Setting the Scene: On AI Ethics and Regulation', in *Artificial Intelligence and the Law*, J. De Bruyne, C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 49-72.

B. Fitzgerald, ''Software as Discourse – A Constitutionalism for Information Society', *Alternative Law Journal*, Vol. 24 (1999), pp. 144-149.

B. Fitzgerald, 'Software as Discourse? The Challenge of Information Law', *European Intellectual Property Review*, Vol. 22 (2000), pp. 47-55.

B. Fitzgerald, 'Software as Discourse: The Power of Intellectual Property in Digital Architecture', *Cardozo Arts & Entertainment Law Journal*, Vol. 18 (2000), p. 337-387.

J. Fjeld et al., 'Principled Artificial Intelligence: Mapping Consensus in Ethical and Rights-based Approaches to Principles for AI', No. 220-1, (Berkman Klein Center Research Publication, 2020), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3518482

T. Flew et al., 'Internet Regulation as Media Policy: Rethinking the Question of Digital Communication Platform Governance', *Journal of Digital Medial & Policy*, Vol. 10 (2019), pp. 33-50.

L. Floridi, J. Cowls, M. Beltrametti, 'AI4People. An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations', *Minds and Machines* (2018).

A. Flückiger, 'L'impact de l'intelligence artificielle sur l'écriture des lois: du code de lois à la loi encodée', *LeGes*, Vol. 30, (2019), pp. 1-10.

V.C. Fluja Guzmán, 'Ideas para un debate sobre la predicción del crimen', in *Inteligencia artificial legal y administración de justicia*, S. Calaza López and M. Llorente Sánchez-Arjona (Cizur Menor: Thomson, Reuters, Aranzadi, 2022), pp. 289-338.

S. Fois, *La « riserva di legge ». Lineamenti storici e problemi attuali* (Milano, A. Giuffrè, 1963).

V. Forray and S. Pimont, 'Le visage du nouveau monstre. L'hypothèse d'un droit non-normatif', *Mélanges en l'honneur de Catherine Thibierge* (Paris : Mare & Martin, 2023), pp. 167-181.

J. Frank, *Law and the Modern Mind*, 6th ed. (London: Stevens & Sons, 1949).

D. Friedmann and D. Barak-Erez, *Human Rights in Private Law* (Oxford, Portland: Hart Publishing, 2001).

C. Fuchs, C*ommunication and Capitalism. A Critical Theory*, (London: University of Westminster Press, 2020).

L.L. Fuller, *The Morality of Law* (New Haven, London: Yale UP, 1969).

G

F. Gamillscheg, 'Die Grundrechte im Arbeitsrecht ', *Archiv für die civilistische Praxis*, No. 164 (1964), pp. 385-445.

O.H. Gandy, *The Panoptic Sort. A Political economy of personal information* (Oxord: Oxford University Press, 2021).

A. Garapon, 'Les enjeux de la justice prédictive', *La semaine juridique*, édition générale no. 1-2 (January 2017), pp. 47-52.

A. Garapon and J. Lassègue, *Justice digitale. Révolution graphique et rupture anthropologique* (Paris : PUF, 2018).

S. Gardbaum, 'The "Horizontal" Effect of Constitutional Rights', *Michigan LR*, Vol. 102 (2003), pp. 387-459.

C. Geertz, *Local Knowledge: Further Essays in Interpretative Anthropology* (New York: Basic Books, 1983).

P. Gerbaudo, *The Digital Party. Political Organisation and Online Democracy* (London: Pluto Press, 2019).

S. Gerke, ' "Nutrition Facts Labels" for Artificial Intelligence/Machine Learning-Based Medical Devices—The Urgent Need for Labeling Standards', The George Washington Law Review, Vol. 9, No. 1 (February 2023), pp. 79-163, available at : https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID4529753_code2972184.pdf?abstractid=4404252&mirid=1&type=2

J. Gesley, 'Netherlands : Court Prohibits Government's Use of AI Software to Detect Welfare Fraud', *Global Legal Monitor* (13th May 2020)

W. Gianinazzi, 'Penser global, agir local. Histoire d'une idée', *EcoRev'. Revue critique d'écologie politique*, no. 46 (Summer 2018), pp. 19-30.

S. Gill, 'The Constitution of Global Capitalism' (2000), available at : http://www.stephengill.com/erkko_inaugural_lecturefor_website.pdf, (accessed June 2015).

L. Gill, D. Redeker and U.Gasser, 'Towards Digital Constitutionalism? Mapping Attempts to Craft and Internet Bill of Rights', *Berkman Center Research Publication,* No. 2015-15 (2015).

L. Gill, D. Redeker and U.Gasser , 'Towards Digital Constitutionalism? Mapping Attemps to Craft an Internet Bill of Rights', *The International Communication Gazette*, Vol. 80 (2018), pp. 302-319.

T. Gillespie, Governance of and by platforms', in *SAGE handbook of social media*, J. Burgess, T. Poell, & A. Marwick, (SAGE, 2017), retrieved from http://culturedigitally.org/2016/06/governance-of-and-by-platforms/

T. Gillespie, *Custodians of the Internet. Platforms, Content Moderation, and the Hidden Decisions that Shape Social Media* (Yale UP, 2018).

J. Gluck and B. Ballou, 'New Technologies and Constitution-Making', in *United States Institute of Peace Special Report* (2013).

B. Goderis and M. Versteeg, 'Transnational Constitutionalism', in *Social and Political Foundations of Constitutions*, D. Galligan and M. Versteeg (Cambridge : Cambridge UP, 2013), pp. 103-133.

J. Goetghebuer, 'Ai and Creditworthiness Assessments: The Tale of Credit Scoring and Consumer Protection. A Story with a Happy Ending?', in *Artificial Intelligence and the Law*, J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021), pp. 429-460.

A.R. Gohdes, 'Repression in the Digital Age: Communication Technology and the Politics of State Violence', Doctoral dissertation, (University of Mannheim, 2014), available at : https://madoc.bib.uni-mannheim.de/37902/1/Gohdes_Anita_Doktorarbeit_Mar2015.pdf

A.R. Gohdes, 'Repression Technology: Internet Accessibility and State violence', *American Journal of Political Science*, Vol. 64-3 (2020), pp. 488-503.

E. Goldman, 'Search Engine Bias & the Demise of Search Engine Utopianism', in *The Next Digital Decade: Essays on the Future of the Internet*, B. Szoka and A. Marcus (TechFreedom, 2011), pp. 111-123.

M. Goldoni, 'The politics of code as law: Toward input reasons' in *Freedom of Expression, the Internet and Democracy*, J. Reichel and A.S. Lind (Brill, 2015), pp 1-18.

A. Golia, 'Beyond Oversight. Advancing Societal Constitutionalism in the Age of Surveillance Constitutionalism' (February 2021), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3793219

R. J. González, 'Militarising Big Tech. The Rise of Silicon Valley's Digital Defence *Industry'* (7 February 2023), available at : https://www.tni.org/en/article/militarising-big-tech

G. González Fuster*, L'intelligence artificielle et son utilisation par les services répressifs, incidences sur les droits fondamentaux: synthèse* (Luxembourg : Publications Office, 2020).

B. Goodman and S. Flaxman, 'European Union Regulations on Algorithmic Decision-Making and a "Right to Explanation"', *AI Magazine*, Vol. 38-3 (2017), pp. 50-57.

C. B. Graber, 'Bottom-Up Constitutionalism: The Case of Net Neutrality', *Transnational Legal Theory*, no. 7-04 (2017), pp. 3-29, available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2941985

L. Gradoni, 'Constitutional Review via Facebook's Oversight Board: How platform governance had its Marbury v Madison' *(*VerfBlog*,* February 2021), available at : https://verfassungsblog.de/fob-marbury-v-madison/

L. Gradoni, 'Twitter Complaint Hotline Operator: Will Twitter join Meta's Oversight Board?' (VerfBlog*,* November 2022), available at : https://verfassungsblog.de/musk-ob/

G. de Gregorio,' From Constitutional Freedoms to the Power of Platforms: Protecting Fundamental Rights Online in the Algorithmic Society', *European Journal of Legal Studies* (2018), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3365106

G. de Gregorio, 'Democratising Online Content Moderation: A Constitutional Framework', *Computer Law and Security Review* (2019) pp. 1-28, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3469443

G. de Gregorio, 'The Rise of Digital Constitutionalism in the European Union', *International Journal of Constitutional Law*, Vol. 19 (2021), pp. 41-70.

G. de Gregorio, 'Digital constitutionalism across the Atlantic', *Global Constitutionalism*, Vol. 11-2 (2022), pp. 297-324.

G. de Gregorio, 'The Normative Power of Artificial Intelligence', Indiana Journal of Global Legal Studies, Vol. 55 (2023), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4436287

G. de Gregorio, *Digital Constitutionalism in Europe. Reframing Rights and Powers in the Algorithmic Society* (Cambridge: Cambridge UP, 2022), p.92, pp. 112-120, pp. 157-215, pp. 192-201, pp. 254-255.

G. De Gregorio, P. Dunn and O. Pollicino, 'Shareholder Power as a Constitutionalising Force: Elon Musk's Bid to Buy Twitter' (VerfBlog, 4th April 2021), available at : https://verfassungsblog.de/musks-bid-to-buy-twitter/

G. de Gregorio and C. Goanta, 'The Influencer Republic: Monetizing Political Speech on Social Media', *German Law Journal*, Vol. 23 (2022), pp. 204-225.

G. de Gregorio and R. Radu, 'Digital Constitutionalism in the New Era of Internet Governance', *International Journal of Law and Information Technology*, no. 30 (2022), pp. 68-87.

R. Griffin, 'Public and Private Power in Social Media Governance: Multistakeholderism, the Rule of Law and Democratic Accountability', *Transnational Legal Theory,* Vol. 14-1, (April 2023), pp. 46-89, available at : https://www.tandfonline.com/doi/full/10.1080/20414005.2023.2203538

J. Griffiths, 'Myanmar Shuts Down Internet In Conflict Areas As UN Expert Warns of Potential Abuses' (CNN, June 2019), available at : www.cnn.com/2019/06/25/asia/myanmar-internet-shutdown-intl-hnk/index.html

J. Grimmelmann, 'Some Skepticism About Search Neutrality', in *The Next Digital Decade: Essays on the Future of the Internet,* B. Szoka and A. Marcus (TechFreedom, 2011), pp. 435-459.

F. G'sell, *Les réseaux sociaux, entre encadrement et auto-régulation* (Sciences Po, Chair Digital, Governance and Sovereignity, April 2021), pp. 48-55, available at : https://www.sciencespo.fr/public/chaire-numerique/wp-content/uploads/2022/02/F-GSELL-Research-Paper-Les-réseaux-sociaux-entre-encadrement-et-auto-régulation-version-transitoire-avril-2021-1.pdf

R. Guastini, 'Legge (riserva di)', *Digesto delle discipline pubblicistiche*, 4th ed., Vol. 9 (Torino, U.T.E.T., 1994).

W. Guay, 'Intelligence artificielle et application non contentieuse du droit : une réactualisation du problème du design institutionnel de Lon L. Fuller', *Communitas*, Vol. 3 (2022), pp. 1-36.

R. Gulati, 'Meta's Oversight Board and Transnational Hybrid Adjudication—What Consequences for International Law?'*, German Law Journal*, Vol. 24-3, (2023), pp. 473–493.

D.J. Gunkel, *Robot Rights*, (Cambridge, Massachusetts: The MIT Press, 2018).

D. Gunning, *Explainable Artificial Intelligence*, DARPA/I20, (2016).

J.D. Gutiérrez, 'ChatGPT in Colombian Courts: Why we need to have a conversation about the digital literacy of the judiciary' (VerfBlog, February 2023), available at https://verfassungsblog.de/colombian-chatgpt/

J.D. Gutiérrez, 'Judges and Magistrates in Peru and Mexico Have ChatGPT Fever', (TechPolicy, April 19th 2023), available at : https://techpolicy.press/judges-and-magistrates-in-peru-and-mexico-have-chatgpt-fever/

H

M. Hildebrandt, 'Legal and Technological Normativity: More (and less) that twin sisters', *Techné. Research in Philosophy and Technology*, Vol. 12 (2008), pp. 169-183.

M. Hildebrandt, *Smart Technologies and the End(s) of Law. Novel Entanglements of Law and Technology* (Cheltenham: Edward Elgar, 2015).

M. Hildebrandt and E. De Vries, *Privacy, Due process and the Computational Turn*, (Abingdon, New York: Routledge, 2012).

R. Hill, 'The Internet, Its Governance, and the Multi-Stakeholder Model', *Emerald Insight Info*, Vol. 16 (2014), pp. 14-46.

M. Hindman, *The Myth of Digital Democracy* (Princeton: Princeton UP, 2008).

T. Hochmann, *Le négationnisme face aux limites de la liberté d'expression : étude de droit comparé*, préf. Otto Pfersmann (Paris: A. Pedone, 2013).

T. Hochmann, 'Le constitutionnalisme global', *Revue française de droit constitutionnel*, n° 120 (2019), pp. 885-904.

T. Hochmann, 'Le constitutionnalisme global', in *Théories du droit global*, B. Frydman, G. Lewkowicz (Paris: Presses de Sciences Po, à paraître).

T. Hochmann and J. Reinhardt, *L'effet horizontal des droits fondamentaux*, préf. Masing J. (Paris : Pedone, 2018).

W.N. Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, ed. W.W. Cook foreword A.L. Corbin, (Westport, Connecticut: Greenwood Press, 1978).

H. Hubbard, 'Twitter has lost 50 of its top 100 advertisers since Elon Musk took over, report says' (Npr, Business25th November 2022), available at : https://www.npr.org/2022/11/25/1139180002/twitter-loses-50-top-advertisers-elon-musk#:~:text=Twitter%20has%20lost%2050%20of,Musk%20took%20over%2C%20report%20says&text=via%20Getty%20Images-,Half%20of%20Twitter's%20top%20100%20advertisers%20appear%20to,be%20advertising%20on%20the%20website.&text=via%20Getty%20Images-,Half%20of%20Twitter's%20top%20100%20advertisers%20appear%20to,be%20advertising%20on%20the%20website

E. Hunt, 'Tay, Microsoft's AI Chatbot, get a crash course in racism from Twitter', *The Guardian*, (24th March 2016).

I

M. Ienca, 'On Neurorights', *Frontiers in Human Neuroscience,* Vol. 15, (2021).

M. Ienca and R. Andorno, 'Towards New Human Rights in the Age of Neuroscience and Neurotechnology'*, Life Sciences, Society and Policy*, Vol. 13 (2017), pp. 1-27.

M. Ienca, J.J. Fins, R.J. Jox et al. , 'Towards a Governance Framework for Brain Data', *Neuroethics*, Vol. 15 (2022), pp. 1-14 available at : https://link.springer.com/article/10.1007/s12152-022-09498-8

J

H.-G. Jaschke, *Streitbare Demokratie und innere Sicherheit. Grundlagen, Praxis und Kritik* (Opladen, Westdeutscher Verlag, 1991).

A.-C. Jamart, 'Internet Freedom and the Constitutionalization of Internet Governance', in *The Evolution of Global Internet Governance: Principles and Policies in the Making*, R. Radu (Berlin: Springer, 2014) pp. 57-76.

A. Jean, *Les algorithmes font-ils la loi?* (Paris : Le livre de poche, 2023).

G. Jellinek, *Allgemeine Staatslehre* (Berlin: O. Häring, 1900).

E. Jesse, *Streitbare Demokratie. Theorie, Praxis und Herausforderungen in der Bundesrepublik Deutschland* (Berlin: Colloquium Verlag, 1980).

A. Jobin, M. Ienca and E. vayena, 'The Global Landscape of AI Ethics', *Nature Machine Intelligence*, Vol. 1 (2019), pp. 389-399.

M. L. Jones, 'Right to a Human in the Loop: Political Constructions of Computer Automation and Personhood, *Social Studies of Science*, (2017), pp. 216-239.

F. Jongepier, M. Klenk, *The Philosophy of Online Manipulation* (New York: Routledge, 2022).

K

S. Kadelbach and T. Kleinlein, Überstaatliches Verfassungsrecht, *Archiv der Völkerrechts*, Vol. 44 (2006), pp. 235-266.

B. Kaiser, *Targeted. The Cambridge Analytica Whistleblower's Inside Story of How Big Data, Trump, and Facebook Borke Democracy and How it can Happen Again* (New York: Harper Collins, 2019).

M. Kaminski, 'The Right to Explanation, Explained', *Berkeley Technology Law Journal*, Vol. 34-1, (2019), pp. 189-218.

V. Karavas, *Digitale Grundrechte. Elemente einer Verfassung des Informationflusses im Internet* (Baden-Baden: Nomos, 2007).

V. Karavas and GuntherTeubner, 'Www.CompanyNameSucks.com: The Horizontal Effect of Fundamental Rights on 'Private Parties' with Autonomous Internet Law', *Constellations*, Vol. 12 (2015), pp. 262-282.

T. Karppi et al., 'Affective Capitalism: Investments and Investigations', *Ephemera: Theory & Politics in Organization*, Vol. 16 (2016), pp. 1-13, available at : https://ephemerajournal.org/sites/default/files/2022-01/16-4editorial.pdf

M. Keck and K. Sikkink, *Activists Beyond Borders. Advocacy Networks in International Politics* (Ithaca, New York: Cornell UP, 1998).

P. Kellmeyer, 'Neurorights: A Human Rights Based Approach for Governing Neurotechnologies', in *The Cambridge Handbook of Responsible Artificial Intelligence* (2022), pp. 412-426.

H. Kelsen, *Reine Rechtslehre. Einleitung in die Rechtswissenschaftliche Problematik* (Liepzig, Wien: Franz Deuticke, 1934).

H. Kelsen, *Reine Rechtslehre*, Vol. 2 (Wien: Franz Deuticke, 1983).

H. Kelsen, K. Ringhofer and R. Walter, *Allgemeine Theorie der Normen* (Wien, Manz, 1979).

C. Kemper, 'Kafkaesque AI? Legal Decision-Making in the Era of Machine Learning', *Intellectual Property and Technology Law Journal*, Vol. 24-2 (2020), pp. 251-294.

D. Kennedy, 'A Semiotics of Legal Argument', *Syracuse Law Review*, Vol. 42 (1991), pp. 75-130.

D. Kennedy, 'Three Globalizations of Law and Legal Thought: 1850-2000', in *The New Law and Economic Development. A Critical Appraisal*, D. Trubekand and A. Santos (Cambridge, New York, Melbourne: Cambridge University Press, 2006), pp. 19-73.

D. Kennedy, 'The Mystery of Global Governance', in *Ruling the World. Constitutionalism, International Law, and Global Governance*, J.-L. Dunoff, and J.-P. Trachtman (Cambridge: Cambridge UP, 2009), pp. 37-68.

K.I. Kersch, 'The New Legal Transnationalism, the Globalized Judiciary, and the Rule of Law', *Washington University Global Studies Law Review*, Vol. 4 (2005), pp. 345-387.

A. Kiyindou, E. Damome and N. Akam, *L'intelligence artificielle. Questions éthiques et enjeux socioéconomiques*, préf. Jean-Michel Besnier (Paris: L'Harmattan, 2022).

E. Klein, 'Mark Zuckerberg on Facebook's hardest year, and what comes next', *Vox* (2nd April 2018), available at : https://www.vox.com/2018/4/2/17185052/mark-zuckerberg-facebook-interview-fake-news-bots-cambridge

E.K. Klemons and J. Wilson, 'Can Google Influence an Election?' (The Huffington Post, October 9th 2012), available at : http://www.huffingtonpost.com/eric-k-clemons/google-election-2012_b_1952725.html

K. Klonick, 'The New Governors: The People, Rules, and Processes Governing Online Speech', *Harvard LR* (2018), pp. 1598-1670.

K. Klonick, 'The Facebook Oversight Board: Creating and Independent Institution to Adjudicate Online Free Expression', *Yale Law Journal*, Vol. 129 (2020), pp. 2418-2499.

J. Knox, Horizontal Human Rights Law, *American Journal of International Law*, no. 102 (2018), pp. 1-75.

A. Kojève, *Esquisse d'une phénoménologie du droit : exposé provisoire* (Paris : Gallimard, 1981).

S. Koloßa, 'Facebook and the Rule of Law', *ZaöRV*, Vol. 80 (2020), pp. 509-531.

B.-J. Koops, 'Criteria for normative technology: The acceptability of "code as law" in light of democratic and constitutional values' in *Regulating Technologies: Legal Futures, Regulatory Frames and Technological Fixes*, R. Brownsword and K. Yeung (Hart, 2008), pp. 157-174.

M. Koskenniemi, 'Global Legal Pluralism: Multiple Regimes and Multiple Modes of Thought' (Harvard, March 2005), available at : https://www.researchgate.net/publication/265477439_GLOBAL_LEGAL_PLURALISM_MULTIPLE_REGIMES_AND_MULTIPLE_MODES_OF_THOUGHT

M. Koskenniemi 'Constitutionalism as Mindset: Reflections on Kantian Themes About International Law and Globalization', *Theoretical Inquiries in Law*, Vol. 8-1 (2007), pp. 10-36.

R. Koselleck, 'Zur historisch-politischen Semantik asymmetrischer Gegenbegriffe', in *Vergangene Zukunft: Zur Semantik geschichlicher Zeiten* (Frankfurt am Main: Suhrkamp, 1989), pp. 211-259.

N. Krisch, *Beyond Constitutionalism. The Pluralist Structure of Postnational Law,* (Oxford: Oxford UP, 2011).

R. J. Krotoszynski, S.G. Grey and L.C. Barnett Lidsky, *The First Amendment: cases and theory* (Austin, Boston, Chicago: Wolters Kluwer, 2008).

M.-S. Kuo, 'The End of Constitutionalism as We Know It? Boundaries and the State of Global Constitutional (Dis)Ordering', *Transnational Legal Theory*, Vol. 1 (2010), pp. 329-369.

M. Kwet, *La Amenaza Poco Sutil del Colonialismo Digital* (2021).

L

H. Lademore, 'Inclusive Constitution-Making: the Icelandic Experiment', *Journal of Political Philosophy* (2014), pp. 166-191.

J. Lameyer, *Streitbare Demokratie. Eine verfassungshermeneutische Untersuchung,* Schriften zum öffentlichen Recht, Bd. 336 (Berlin: Duncker & Humblot, 1978).

M. K. Land, 'A Human Rights Perspective on US Constitutional Protection of the Internet', in *The Internet and Constitutional Law: The Protection of Fundamental Rights and Constitutional Adjudication in Europe*, O. Pollicino and G. Romeo, (London: Routledge, 2016), pp. 48-70.

A.F. Lang and A. Wiener, *Handbook on Global Constitutionalism* (Cheltenham: Edward Elgar, 2017).

J. Larson, S. Mattu, L. Kirchner and J. Angwin, 'How We Analyzed the COMPAS Recidivism Algorithm' (ProPublica, 23rd May 2016), available at : https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm

F. Lassalle, 'On the Essence of Constitutions' (Speech Delivered in Berlin, April 16, 1862), available at : https://www.marxists.org/history/etol/newspape/fi/vol03/no01/lassalle.htm

G. Lazcoz Moratinos and J.A. Castillo Parrilla, 'Valoracion algorítmica ante los derechos humanos y el Reglamento general de protección de datos: el caso SyRI', *Revista chilena de derecho y tecnología*, Vol. 9 (2020), pp. 207-225.

G. Lazcoz and P. de Hert, 'Humans in the GDPR and AIA Governance of Automated and Algorithmic Systems. Essential Pre-requisites Against Abdicating Responsibilities', *Computer Law & Security Review*, Vol. 50 (2023).

D. Leal García et al., *Democracy Technologies in Europe. Online Participation, Deliberation and Voting. A Report for Lawmakers, Governments and Policymakers at National and European Level* (The Innovation in Politics Institute, International Institute for Democracy and Electoral Assistance, 2023), available at : https://www.idea.int/sites/default/files/publications/democracy-technologies-in-europe.pdf

S. Lebreton-Derrien, 'La justice prédictive', *Archives de philosophie du droit*, Vol. 60 (2018), pp. 3-21.

C. Leggewie and H. Meier, *Republikschutz. Maßstäbe für die Verteidigung der Demokratie* (Reinbek bei Hamburg: Rowohlt, 1995).

W. Leisner, *Grundrechte und Privatrecht* (München : C.H. Beck, 1960).

D. Leloup and F. Reynaud, 'Révélations sur les mercenaires de la désinformation', *Le Monde* (15th February 2023), pp. 18-19.

M. A. Lemley, 'The Constitutionalization of Technology Law', *Berkeley Technology Law Journal*, Vol. 15 (2000) pp. 529-534.

L. Lessig, 'Constitution and Code', *Cumberland Law Review*, Vol. 27 (1996-1997), pp. 181-191.

L. Lessig, 'The Constitution of Code: Limitations on Choice-Based Critiques of Cyberspace Regulation', *CommLaw Conspectus* (1997), available at : https://scholarship.law.edu/cgi/viewcontent.cgi?article=1119&context=commlaw

L. Lessig, *Code. Version 2.0* (New York: Basic Books, 2006).

N.S. Lind and E.T. Rankin, *First Amendment rights: an encyclopaedia. Volume one, Traditional issues on the First Amendment* (Santa Barbara, California: ABC-CLIO, 2013).

N.S. Lind and E.T. Rankin, *First Amendment rights: an encyclopaedia. Volume two, Contemporary challenges to the First Amendment* (Santa Barbara, California: ABC-CLIO, 2013).

K. Loewenstein, 'Militant Democracy and Fundamental Rights, I', *The American Political Science Review*, Vol. 31 (1937) pp. 417-432.

K. Loewenstein 'Militant Democracy and Fundamental Rights, II' *The American Political Science Review*, Vol. 31 (1937), pp. 638-658.

A. Litvinenko, 'Re-Defining Borders Online: Russia's Strategic Narrative on Internet Sovereignty', *Media and Communication*, Vol. 9 (2021), pp. 5-15.

M. Loughlin 'What is Constitutionalisation?' in *The Twilight of Constitutionalism?*, P. Dobner and M. Loughlin (Oxford UP, 2010), pp. 47-69.

M. Loughlin, *Against Constitutionalism* (Cambridge, Mass., London: Harvard UP, 2022).

N. Lucchi, 'Freedom of Expression and the Right to Internet Access' in *Routledge Handbook of Media Law*, M. E. Price, S. G. Verhulst and L. Morgan, (Routledge, 2013).

M. Luciani, 'La decisione giudiziaria robotica', *Rivista dell'Associazione italiana dei costituzionalisti*, no. 3 (2018), pp. 872-893.

P.M. Lutscher, 'When Censorship Works: Exploring the Resilience of News Websites to Online Censorship', *British Journal of Political Science* (2023), pp. 1-9, available at : https://doi.org/10.1017/S0007123422000722

R. Lytle, 'Explore Mashable's Crowdsourced Digital Bill of Rights' (Mash-able, *2013*), available at : https://mashable.com/2013/08/12/digital-bill-of-rights-crowdsource/

M

B. Makowiecky Salles and P. Márcio Cruz, 'Jurisdiction and Artificial Intelligence: Reflections and some Applications in Brazilian Courts', *Opinión jurídica*, Vol. 21-46 (2022), pp. 1-20.

G. Malgieri and G. Comande´, 'Why a Right to Legibility of Automated Decision-Making Exists in the General Data Protection Regulation', *International Data Privacy Law*, Vol. 7 (2017).

G. Malgieri, 'Automated Decision-Making in the EU Member States: The Right to Explanation and Other "Suitable Safeguards" in the National Legislations', *Computer Law & Security Review*, Vol. 35, no. 5 (2019), pp. 1-26,available at : https://doi.org/10.1016/j.clsr.2019.05.002

R. Mangabeira Unger, 'The Critical Legal Studies Movement', *Harvard Law Review*, Vol. 96-3, (1983), pp. 561-675.

R. Mangabeira Unger, *False Necessity. Anti-Necessitarian Social Theory in the Service of Radical Democracy* (London, New York: Verso, 2004), pp. 530-535.

M. Mann, A. Daly, M. Wilson and N. Suzor, 'The Limits of (digital) constitutionalism: Exploring the Privacy-Security (im)balance in Australia', *The International Communication Gazette*, Vol. 80 (2018), pp. 369-384.

M. Mann and T. Matzner, 'Challenging Algorithmic Profiling: The Limits of Data Protection and Anti-Discrimination in Responding to Emergent Discrimination', *Big Data & Society,* Vol. 6-2 (2019).

K. Mannheim, *Diagnosis of Our Time. Wartime Essays of a Sociologist* (London: K. Paul, Trench, Trubner & co., 1943).

A. Mantelero, *Beyond Data. Human Rights, Ethical and Social Impact Assessment in AI* (The Hague: T.M.C. Asser Press ; Berlin, Heidelberg : Springer-Verlag, 2022).

S. Marcucci, N. González Alarcón, S.G. Verhulst and E. Wüllhorst, 'Informing the Global Data Future: Benchmarking Data Governance Frameworks', *Data & Policy* (2023).

M. Maroni, *The Right to Access the Internet: A Critical Analysis of the Constitutionalisation of the Internet* (Helsinki: Unigrafia, 2022).

J.L. Martí, 'The Role of New Technologies in Deliberative Democracy', in *Rule of Law vs Majoritarian Democracy,* G. Amato, B. Barbisan, C. Pinelli (Oxford: Hart, 2021), pp. 199-220.

V. Martin, 'La République numérique en débat au Parlement : le projet de commissariat à la souveraineté numérique', *Nouveaux Cahiers du Conseil constitutionnel*, n° 57 (2017), pp. 107-120.

G.T. Marx, *Windows into the Soul: Surveillance and Society in an Age of High Technology* (Chicago: University of Chicago Press, 2016).

M. Marzouki, 'A Decade of CoE Digital Constitutionalism Efforts: Human Rights and Principles Facing Internet Privatized Regulation and Multistakeholder Governance', *2019 International Association for Media and Communication Research Conference* (Madrid, Spain, 2019).

A. Matamoros-Fernández, 'Platformed Racism: The Mediation and Circulation of an Australian Race-Based Controversy on Twitter, Facebook and YouTube', *Information, Communication and Society*, Vol. 20-6 (2017), pp. 930-946.

A. Matelero, *Beyond Data. Human Rights, Ethical and Social Impact Assessment in AI* (Springer, 2022).

K. Mathiesen, 'The human right to internet access: A philosophical defense', *International Review of Information Ethics*, Vol. 18-12 (2012) pp. 9-22.

J. Matias et al. , 'Reporting, Reviewing, and Responding to Harassment on Twitter' (May 2015), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2602018

O. Mayer, *Le droit administratif allemand*, Tome 1 (Giard et Brière, 1903).

A. Mbembe and F. Sarr, *The Politics of Time: Imagining African Becomings* (Cambridge: Polity Press, 2023).

A.J. McGann, 'The Tyranny of Supermajority: How Majority Rule Protects Minorities', *Journal of Theoretical Politics*, Vol. 16 (2004), pp. 56-70.

J.O. McGinnis and Steven Wasick, 'Law's Algorithm', *Florida LR*, Vol. 66 (2015), pp. 991-1050.

C.H. McIlwain, *Constitutionalism: Ancient and Modern* (Cornell UP, 1940).

A. McStay, *Emotional AI. The Rise of Empathic Media* (London, Sage, 2018).

N. Meier and A. Golia, 'The Emerging Normative System of Meta's Oversight Board. An Introduction', *MPIL Research Paper*, No. 2022-29, available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4300480

S. Menétrey and B. Hess, *Les dialogues des juges en Europe* (Bruxelles, Larcier : 2013).

G. F. Mendes, V. O. Fernandes, 'Constitucionalismo digital e jurisdição constitucional: uma agenda de pesquisa para o caso brasileiro', *Revista brasileira de direito*, Vol. 16, no. 1 (2020), pp. 1-33.

M. Mendoza Escalante, 'La eficacia de los derechos fundamentales en las relaciones entre particulares', *Pensamiento constitucional*, Vol. 11, no. 1 (2005), pp. 219-271.

F. Métézeau, P. Lewis, C. Andrzejewski and J. Monin, 'Soupçon d'ingérence à BFMTV : derrière le cas de Rachid M'Barki, l'enquête « Story Killers » révèle le rôle d'une agence de désinformation israélienne' (France TV Info, February 2023), available at : https://www.francetvinfo.fr/monde/story-killers/soupcon-d-ingerence-a-bfmtv-derriere-le-cas-de-rachid-m-barki-l-enquete-story-killers-revele-le-role-d-une-agence-de-desinformation-israelienne_5659016.html

A. Meuwese and M. Snel, 'Constitutional Dialogue: An Overview', *Utrecht Law Review*, Vol. 9 (2013) pp. 123-140.

J. Meyrieu, 'Promesses et limites du contrôle citoyen sur Internet', *Revue du droit public* (2020), pp. 997-1015.

R. Mignot-Mahdavi, *Drones and International Law. A Techno-legal Machinery* (Cambridge UP, 2023).

J. Mijangos y González, *Los derechos fundamentales en las relaciones entre particulares. Análisis del caso mexicano*, pról. A. Zaldívar Lelo de Larrea, col. Biblioteca Porrúa de derecho procesal constitucional, Vol. 18 (México, Porrúa : Instituto mexicano de derecho procesal constitucional, 2007).

K. Mikhail, 'Direction of fit', *Logique et analyse*, Vol. 50, no. 198 (2007), pp. 113-128.

B. Mittelstadt, P. Allo, M. Taddeo, S. Wachter and L. Floridi, 'The Ethics of Algorithms: Mapping the Debate', *Big Data & Society*, Vol. 3 (2016), available at : https://doi.org/10.1177/2053951716679679

B. Mittelstadt, C. Russell, and S. Wachter 'Explaining Explanations in AI' (2018), available at : https://arxiv.org/abs/1811.01439

S. Mohamed, MT. Png and W. Isaac, Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence. *Philos, Tecnol*., Vol. 33 (2020), pp. 659-684, available at : https://doi.org/10.1007/s13347-020-00405-8

L. Moncau and D. Arguelhes, 'The Marco Civil da Internet and Digital Constitutionalism', *in The Oxford Handbook of Online Intermediary Liability*, G. Frosio (Oxford: Oxford UP, 2020), pp. 190-213, available at : https://academic.oup.com/edited-volume/34234

C.L. Montesquieu, *The Spirit of Laws* (1748).

C.L. Montesquieu, *The Spirit of Laws* (Kitchener: Batoche Books, 2001) available at : https://socialsciences.mcmaster.ca/econ/ugcm/3ll3/montesquieu/spiritoflaws.pdf.

H.M. Motzfeldt, 'Public digitalisation in Denmark', in *Public Law: Insights into Danish Constitutional and Administrative Law*, P. A. Nielsen, J. Olsen and H. R. Forlag, (2022), pp. 113-128.

H.M. Motzfeldt, 'Transformation: Automated Decisions and Decision Support Based on Machine Learning' in *Public Law: Insights into Danish Constitutional and Administrative Law Public Administration*, P.A. Nielsen, J. Olsen and H. R. Forlag (2022), pp. 445-462.

N. Muciaccia, 'Algoritmi e procedimento decisionale: alcuni recenti arresti della giustizia amministrativa', Federalismi.it, no. 10 (April 2020), pp. 344-368, available at : https://www.federalismi.it/nv14/articolo-documento.cfm?Artid=41974

A.B. Muñoz Ruiz, *Biometría y sistemas automatizados de reconocimiento de emociones: Implicaciones Jurídicos-Laborales* (Valencia: Tirant lo Blanch, 2023).

H. Muir Watt and G. Tusseau, 'Repenser le dévoilement de l'idéologie juridique : une approche fictionnelle de la gouvernance globale' in *Traité des rapports entre ordres juridiques*, B. Bonnet (Paris: LGDJ, 2016) pp. 169-219.

N

P. Nemitz, 'Constitutional Democracy and Technology in the Age of Artificial Intelligence', *Philosophical Transactions of the Royal Society* (2018), pp. 1-14, available at : https://royalsocietypublishing.org/doi/10.1098/rsta.2018.0089

M. Neves, *Transconstitucionalismo* (São Paulo : W.M.F. Martins Fontes, 2009).

M. Neves, *A constitucionalizacao simbólica*, (São Paulo : W.M.F. Martins Fontes, 2011).

S. Newton, 'Constitutionalism and Imperialism sub specie Spinozae', *Law and Critique*, Vol. 17 (2006), pp. 325-355.

L. M. Niehoff and E. T. Sullivan, *Free Speech: From Core Values to Current Debates* (Cambridge, Cambridge University Press, 2022).

P. Niesen, 'Anti-Extremism, Negative Republicanism, Civic Society: Three Paradigms for Banning Political Parties. Part I', *German LJ*, Vol. 3 (2002), available at : https://www.cambridge.org/core/services/aop-cambridge-core/content/view/ED1610C59EB8909ADCD7FB1979C54772/S2071832200015157a.pdf/antiextremism_negative_republicanism_civic_society_three_paradigms_for_banning_political_parties_part_i.pdf (accessed January 2021).

E. Niiler, 'Can AI be a Fair Judge in Court? Estonia Thinks So' (Wired, 25th March 2019), available at : https://www.wired.com/story/can-ai-be-fair-judge-court-estonia-thinks-so/

H.C. Nipperdey, *Grundrechte und Privatrecht* (Krefeld, Scherpe, 1961).

S.U. Noble, *Algorithms of Oppression. How Search Engines Reinforce Racism* (New York UP, 2018).

D. Nolte and A. Schilling-Vacaflor, *New Constitutionalism in Latin America. Promises and Practices* (Farnham, Burlington: Ashgate, 2012).

H. Nogueira Alcalá, *Diálogo judicial multinivel y principios interpretativos favor persona y de proporcionalidad* (Santiago de Chile, Librotecnia, Talca: Centro de Estudios Constitucionales de Chile, Universidad de Talca, 2013).

A.J. Noll, *Internationale Verfassungsgerichtsbarkeit. Fragen der Verfassungsgerichtsbarkeit in Grossbritannien, der USA, Frankreich, Italien und Japan* (Wien:Verl. der Österr. Staatsdr., 1992).

B. Noveck, *Wikigovernment. How Technology can Make Governments Better, Democracy Stronger and Citizens More Powerful* (Brookings Institution, 2009).

O

A. Oates, 'Towards an Internet Bill of Rights', in *The Onlife Manifesto. Being Human in a Hyperconnected Era*, L. Floridi (Springer, 2015), pp. 229-243.

D. O'Keeffe and A. Bavasso, *Judicial Review in European Union Law. Liber Amicorum in Honour of Lord Slynn of Hadley* (The Hague, London, Boston : Kluwer Law International, 2000).

C. O'Neil, *Weapons of math destruction: how big data increases inequality and threatens democracy* (New York, Crown, London: Allen Lane, 2017).

A. Orakhelashvili, 'Peremptory Norms as an Aspect of Constitutionalisation in the International Legal System', in *The Dynamics of Constitutionalism in the Age of Globalisation,* M. Frishman and S. Muller (The Hague : Hague Academic Press, 2010), pp. 153-180.

P

J.C.B. Pacheco, *Possibilidades de utilização da inteligência artificial no Poder Judiciário*. (Natal, Universidade Federal do Rio Grande do Norte, 2019).

C. Padovani and M. Santaniello, 'Digital Constitutionalism: Fundamental Rights and Power Limitation in the Internet Eco-System', *The International Communication Gazette*, Vol. 80 (2018), pp. 295-301.

A. Papatolias, *Conception mécaniste et conception normative de la constitution* (Athènes, Bruxelles : Bruylant, 2000).

H.-J. Papier and W. Durner 'Streitbare Demokratie', *Archiv des öffentlichen Rechts*, Vol. 128 (2003), pp. 340-371.

E. Pariser, *The Filter Bubble. What the Internet is Hiding from You* (New York: Penguin Press, 2011).

R.D. Parker, '*Here the People Rule'. A Constitutional Populist Manifesto* (San Jose, New York, Lincoln, Shangai: toExcel ; Cambridge, Mass., London: Harvard UP, 1994).

F. Pasquale, *The Black Box Society. The Secret Algorithms That Control Money and Information*, (Harvard: Harvard University Press, 2015).

F. Pasquale, 'From Territorial to Functional Sovereignty: The Case of Amazon', *Law and Political Economy* (December 2017), available at : https://lpeproject.org/blog/from-territorial-to-functional-sovereignty-the-case-of-amazon/

F. Pasquale, 'Inalienable Due Process in an Age of AI: Limiting the Contractual Creeop toward Automated Adjudication', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino et al. (Cambridge: Cambridge UP, 2021), pp. 42-56.

I. Pernice, 'Global Constitutionalism and the Internet. Taking People Seriously', in *Law Beyond The State. Pasts and Futures*, R. Hofmann and S. Kadelbach (Frankfurt, New York: Campus Verlag, 2016), pp. 151-205.

W.L. Perry et al., *Predictive Policing: The Role of Crime Forecasting in Law Enforcement Operations* (RAND Corporation, 2013).

A. Peters 'Global Constitutionalism Revisited', available at : https://www.mpil.de/files/pdf4/Peters_Global_Constitutionalism3.pdf

A. Peters, 'Global Constitutionalism Revisited', *International Legal Theory*, Vol. 11 (2005), pp. 39-69.

A. Peters, 'Compensatory Constitutionalism: The Function and Potential of Fundamental International Norms and Structures', *Leiden Journal of International Law*, Vol. 19 (2006), pp. 579-610.

A. Peters, 'Conclusions', in *The Constitutionalization of International Law,* J. Klabbers, A. Peters and G. Ulfstein (Oxford: Oxford UP, 2009), pp. 342-352.

A. Peters, 'The Merits of Global Constitutionalism', *Indiana Journal of Global Legal Studies*, Vol. 1 (2009), pp. 397-411.

A. Pettrachin, 'Towards a Universal Declaration on Internet RIghts and Freedoms', *The International Communication Gazette*, Vol. 80 (2018), pp. 337-353.

S. Picciotto, 'Constitutionalising Multi-Level Governance?' *International Journal of Constitutional Law*, Vol. 6 (2008), pp. 457-479.

P.-E. Pignarre, *La Cour de justice de l'Union européenne, juridiction constitutionnelle* (Bruxelles: Bruylant, 2021).

O. Pollicino, 'Right to Internet Access: Quid Iuris?' in *The Cambridge Handbook on New Human Rights. Recognition, Novelty, Rhetoric*, A. von Arnauld, K. von der Decken and M. Susi (Cambridge University Press, 2019).

O. Pollicino, *Judicial Protection of Fundamental Rights on the Internet. A Road Towards Digital Constitutionalism?* (Oxford: Hart, 2021).

O. Pollicino, 'Di cosa parliam quando parliamo di costituzionalismo digitale? New Wine in Old Bottles o una nuova stagione del diritto costituzionale?', *Quaderni costituzionali* (2023).

O. Pollicino, 'The Quadrangular Shape of the Geometry of Digital Power(s) and the Move Towards a Procedural Digital Constitutionalism', *European Law Journal* (2023), pp. 1-21.

O. Pollicino and G. de Gregorio, 'Constitutional Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, G. de Gregorio, (Cambridge: Cambridge UP, 2021), pp. 3-24.

O. Pollicino and L. Somaini, 'Online Disinformation and Freedom of Expression in the Democratic Context' in *Misinformation in Referenda,* S. Boillet Baume and V. Martenet Vincent, (Abingdon, New York: Routledge, 2021).

Q

J.P. Quintais, N. Appelman and R.Ó Fathaigh, 'Using Terms and Conditions to Apply Fundamental RIghts to Content Moderation', *German Law Journal*, Vol. 24 (2023), pp. 881-911.

P.-Y. Quiviger, 'Une approche philosophique du concept émergent de souveraineté numérique', *Nouveaux Cahiers du Conseil constitutionnel*, no. 57 (2017), pp. 25-28.

R

J.R. Reidenberg, 'Lex Informatica: The Formulation of Information Policy Rules Through Technology', *Texas Law Review*, Vol. 76 (1997), pp. 553.

T. O'Reilly, 'Open Data and Algorithmic Regulation', in *Beyond Transparency. OpenData and the Future of Civic Innovation*, B. Goldstein (San Francisco: Code for America, 2013), pp. 289-301.

R. Richardson, J.M. Schultz and V.M. Southerland, 'Litigating Algorithms 2019 US Report: New Challenges to Government Use of Algorithmic Decision Systems', (AI Now Institute, 17th September 2019), available at : https://ainowinstitute.org/publication/litigating-algorithms-2019-u-s-report-2

J. Rinze, 'The Role of the European Court of Justice as a Federal Constitutional Court', *Public Law* (1993) pp. 426-443.

M. Risse, *Political Theory of the Digital Age Where Artificial Intelligence Might Take Us* (Cambridge University Press, 2023), pp. 137-159.

H. Roberts, E. Hine and L. Floridi, 'Digital Sovereignty, Digital Expansionism, and the Prospects for Global AI Governance', *Quo Vadis, Sovereignty?: New Conceptual Boundaries in the Digital Age of China* (2023), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4483271

S. Rodotà, 'Una costituzione per Internet', *Politica del diritto* (2010), pp. 337-351.

A. Rosas and L. Armati, *EU Constitutional Law. An Introduction*, 2nd ed. (Oxford: Hart Publishing, 2012).

A. Rogerson, E. Hankins, P. Fuentes Nettel and S. Rahim, *Government AI Readiness Index 2022* (Oxford Insights, 2022), available at : https://static1.squarespace.com/static/58b2e92c1e5b6c828058484e/t/639b495cc6b59c620c3ecde5/1671121299433/Government_AI_Readiness_2022_FV.pdf

G. Rosner and E. Kenneally, *Clearly Opaque: Privacy Risks of the Internet of Things* (IoT Privacy Forum, 2018), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3320656#:~:text=The%20IoT%20has%20the%20potential,of%20the%20risk%20of%20surveillance

G. Rosner and E. Kenneally, *Privacy and the Internet of Things. Emerging Frameworks for Policy and Design*, (UC Berkeley Center for Long-Term Cybersecurity Occasional White Paper Series, 2018), available at : https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3320670 ; F. Allhoff and A. Henschke, 'The Internet of Things: Foundational Ethical Issues', *Internet of Things*, Vol. 1-2 (2018), pp. 55-66.

G. Rouet, *Algorithmes et décisions publiques* (Paris : CNRS éditions, 2019).

O. Rozenberg, 'Post-Pandemic Legislatures: Is Real Democracy Possible with Virtual Parliaments?', *ELF Discussion Paper,* no. 2 (European Liberal Forum, 2020), available at : https://archive.liberalforum.eu/publications/post-pandemic-legislatures-is-real-democracy-possible-with-virtual-parliaments/

A. Rouvroy, ' « Des données et des hommes ». Droits et libertés fondamentaux dans un monde de données massives", *T-PD-BUR(2015)09REV* (Council of Europe, 2016), available at : https://rm.coe.int/16806b1659

A. Rouvroy and T. Berns, 'Gouvernementalité algorithmique et perspectives d'émancipation. Le disparate comme condition d'individuation par la relation', *Réseaux*, no. 177 (2013), pp. 163-196.

A. Rouvroy and Y. Poullet, 'The right to informational self-determination and the value of self-development: Reassessing the importance of privacy for democracy' in *Reinventing Data Protection?*, S. Gutwirth, Y. Poullet, P. De Hert P, et al. (Dordrecht: Springer, 2009) pp. 45–76.

M. Ruiz Dorado, *Constitución y espionaje. Un estudio comparado de algunos sistemas gubernamentales de interceptación de España e Italia* (Valencia : Tirant lo Blanch, 2022).

S. J. Russell and Peter Norvig, *Artificial intelligence: A Modern Approach*, 4th ed. (Harlow: Pearson, 2022).

S

A. Sajò, *Militant Democracy* (Utrecht: Eleven International Publishing, 2004).

A. Sajó and R. Uitz, *The Constitution in Private Relations. Expanding Constitutionalism* (Utrecht : Eleven International Pub., 2005).

A. Salyzyn, 'The ChatGPT Lawyer: Promises, Perils, and Practicalities' (Slaw online magazine, 23 February 2023), available at : https://www.slaw.ca/2023/02/23/the-chatgpt-lawyer-promises-perils-and-practicalities/

A. Sánchez Navarro and R. M. Fernández Rivera, *Reflexiones para una democracia de calidad en una era tecnológica*, (Cheltenham: E. Elgar, 2022).

N.P. Sagüés, *Derecho procesal constitucional, Logors y obstàculos* (Buenos Aires, Esutidos de Derecho Procesal Constitucional IV, 2006).

K. Santaliz and J. Tsirkin, 'AI wrote a bill to regulate AI. Now Rep. Ted Lieu wants Congress to pass it' (NBC News, 26 January 2023), available at : https://www.nbcnews.com/politics/congress/ted-lieu-artificial-intelligence-bill-congress-chatgpt-rcna67752

M. Santaniello et al., 'The Language of Digital Constitutionalism and the Role of National Parliaments', *The International Communication Gazette*, Vol. 80 (2018), pp. 320-336.

D. Scheiderman, 'A New Global Constitutional Order?', in *Comparative Constitutional Law* , T. Ginsburg and R. Dixon (Cheltenham, Northampton: E. Elgar, 2013), pp. 189-207.

H. Schepel, *The Constitution of Private Governance. Product Standards in the Regulation of Integrated Markets (*Oxford, Portland: Hart O-Publishing, 2005)

P. Schiff Berman, 'Cyberspace and the State action debate: the cultural value of applying constitutional norms to 'private' regulation', *University of Colorado LR*, Vol. 71 (2000), pp. 1263-1310.

J. Schradie, *L'illusion de la démocratie numérique. Internet est-il de droite* ? (Lausanne : Quanto, Presses polytechniques et universitaires romandes, 2022).

R. Schütze, *European Constitutional Law* (New York: Cambridge UP, 2012).

K. Schwab, *The Fourth Industrial Revolution* (Geneva: World Economic Forum, 2016).

C.E.J. Schwöbel, *Global Constitutionalism in International Legal Perspective* (Leiden: Martinus Nijhoff, 2011).

J.R. Searle, *Les actes de langage. Essai de philosophie du langage*, trad. fr. H. Pauchard (Paris : Hermann, coll. Savoir, 1972).

J.R. Searle, *Intentionality: An Essay in the Philosophy of Mind* (Cambridge: Cambridge University Press, 1983).

J.R. Searle, *La construction de la réalité sociale*, trad. fr. C. Tiercelin (Paris : Gallimard, coll. Nrf essais, 1998).

J.R. Searle and D. Vanderveken, *Foundations of Illocutionary Logic* (Cambridge, Cambridge University Press, 1985).

A. Seixas-Nunes, *The Legality and Accountability of Autonomous Weapon Systems. A Humanitarian Law Perspective* (2022).

J. Semple, *Bentham's Prison. A Study of the Panopticon Penitentiary* (Oxford, Clarendon Press, 1993).

A. Shahbaz et al., *Freedom on the Net 2022. Countering an Authoritarian Overhaul of the Internet* (Freedom House, 2022) available at : https://freedomhouse.org/sites/default/files/2022-10/FOTN2022Digital.pdf

Y. Shany, 'Digital Rights and the Outer Limits of International Human Rights Law', *German Law Journal* (2023), pp. 461–472.

N. Shaver, 'The Use of Large Language Models in LegalTech', (Legaltech Hub, 18th February 2023), available at : https://www.legaltechnologyhub.com/contents/the-use-of-large-language-models-in-legaltech/

N. Shengelia, 'Fundamental Rights and Eroding Constitutionalism', *E-Journal of Law*, Vol. 7 (2021), pp. 119-145.

T. Shulga-Morskaya, 'Le numérique saisi par le juge, l'exemple du Conseil constitutionnel', *Les nouveaux Cahiers du Conseil constitutionnel*, n° 57 (2017), pp. 93-105.

S. de la Sierra, 'La matematización de la realidad y del Derecho Público' (14th March 2022), available at : https://www.ibericonnect.blog/2022/03/la-matematizacion-de-la-realidad-y-del-derecho-publico/?utm_source=mailpoet&utm_medium=email&utm_campaign=newsletter-post-title_361

A. Simard, 'L'échec de la Constitution de Weimar et les origines de la "démocratie militante" en R.F.A.', *Jus politicum. Revue de droit politique*, no. 1 (2008), http://juspoliticum.com/article/L-echec-de-la-Constitution-de-Weimar-et-les-origines-de-la-democratie-militante-en-R-F-A-29.html (accessed January 2021).

A. Simoncini, 'The Constitutional Dimension of the Internet. Some Research Paths', *EUI Working Papers*, Law 2016/16 (2016) available at : https://cadmus.eui.eu/handle/1814/40886

A. Simoncini and E. Longo, 'Fundamental Rights and the Rule of Law in the Algorithmic Society', in *Constitutional Challenges in the Algorithmic Society,* H-W. Micklitz, O. Pollicino, A. Reichman, A. Simoncini, G. Sartor, G. de Gregorio, (Cambridge: Cambridge UP, 2021) pp. 27-41.

Y. Sintomer, *Petite Histoire de l'expérimentation démocratique. Tirage au sort et politique d'Athènes à nos jours* (Paris: La Découverte, 2011).

G. Sitaraman, 'Deplatforming', *Yale Law Journal* (2023), available at : http://dx.doi.org/10.2139/ssrn.4375304

N. Six, 'Australie : Facebook accusé d'avoir délibérément bloqué des pages gouvernementales pour epêcher le vote d'une loi', *Le Monde*, (May 2022).

A.-M. Slaughter, *A New World Order* (Princeton, Princeton UP, 2005).

R. E. Smith, *Rage Inside the Machine: The Prejudice of Algorithms, and How to Stop the Internet Making Bigots of Us All* (New York, Bloomsbury Business, 2019).

A.N. Smuha, *Digital Sovereignty in the European Union: Five Challenges from a Normative Perspective* (July 2023), available at : http://dx.doi.org/10.2139/ssrn.4501591

J. Snyder, 'RoboCourt: How Artificial Intelligence Can Help Pro Se Litigants and Create a "Fairer" Judiciary', *Indiana. J.L. & Soc. Equal, Vol.* 10-1 (July 2022), pp. 200-220.

R.F.L. Sparemberger and J.P.A Teixeira, 'En Busca de una Teoría Constitucional Decolonial Aplicada al Ciber-Mundo: Reflexiones desde Silencios Digitales', in *Constitucionalismo en clave descolonial*, L. Estupiñán Achury and L. Balmant Emerique (Bogotá: Universidad libre, 2022), pp. 243-264.

D. Soares Farinho, 'La Carta portuguesa de derecho shumanos en la era digita', *Revista española de la transparencia* (2021), pp. 85-105, available at : https://doi.org/10.51915/ret.191

G. C. Spivak, 'Can subaltern speak ?', in *Marxism and the Interprétation of Culture*, C. Nelson and L. Grossberg, Champaign (University of Illinois Press, 1988), pp. 271-313.

E. Stein, 'Lawyers, Judges and the Making of a Transnational Constitution', *American Journal of International Law*, Vol. 75 (1981), pp. 1-27.

R. St. J. Macdonald and D.M. Johnston, *Towards World Constitutionalism. Issues in the Legal Ordering of the World Community* (Leiden: M. Nijhoff, 2005).

C. Storini and J.F. Alenza García, *Materiales sobre neoconstitucionalismo y nuevo constitucionalismo latinoamericano* (Cizur Meno:, Thomson, Reuters, Aranzadi, 2012)0

A. Stremitzer, B.M. Chen and K. Tobia, 'Would Humans Trust an A.I. Judge? More Easily Than You Think', (Slate, 28th February 2023), available at : https://slate.com/news-and-politics/2023/02/chatgpt-law-humans-trust-ai-judges.html

T. Suami, A. Peters, and D. Vanoverbeke, *Global Constitutionalism from European and East Asian Perspectives* (Cambridge: Cambridge UP, 2018).

C. Sunstein, *Republic.com 2.0* (Princeton University Press, 2007).

C. Sunstein, *#Republic. Divided Democracy in the Age of Social Media* (Princeton: Princeton UP, 2017).

R. Susskind, *Online Courts and the Future of Justice* (Oxford: Oxford University Press, 2019).

N. P. Suzor, 'Digital Constitutionalism: Using the Rule of Law to Evaluate the Legitimacy of Governance by Platforms', *Social Media + Society*, no. 4-3 (2018), pp. 1–11.

N. P. Suzor, *Lawless. The Secret Rules That Govern Our Digital Lives* (Cambridge: Cambridge University Press, 2019).

M. Sweney, 'Twitter "to lose 32m users in two years after Elon Musk takeover" ', *The Guardian* (13th December 2022), available at: https://www.theguardian.com/technology/2022/dc/13/twitter-lose-users-elon-musk-takeover-hate-speech

T

G. Teubner, 'Globale Zivilverfassungen: Alternativen zur staatszentrierten Verfassungstheorie', *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht*, no. 63 (2003), pp. 1-28.

G. Teubner, 'Societal Constitutionalism: Alternatives to State-Centred Constitutional Theory?', in *Transnational Governance and Constitutionalism*, C. Joerges, I.-J. Sand and G. Teubner (Oxford, Portland: Hart Publishing, 2004), pp. 3-28.

G. Teubner, 'Horizontal Effects of Constitutional Rights in the Internet: A Legal Case on the Digital Constitution', *The Italian Law Journal*, Vol. 3 (2017), pp. 193-205.

G. Teubner, Constitutionalising Polycontexturality (2010), available at : http://www.jura.uni-frankfurt.de/42852930/ConstitutionalisingPolycontexturality_eng.pdf (accessed November 2021).

G. Teubner, 'Self-Constitutionalizing TNCs? On the Linkage of 'Private' and 'Public' Corporate Codes of Conduct', *Indiana Journal of Global Legal Studies,* Vol. 18-2 (Indiana University Maurer School of Law, summer 2011), pp.17-38, available at: https://www.jura.uni-frankfurt.de/42852833/CSR_conference_bremen.pdf (accessed November 2021).

G. Teubner and A. Golia, 'Societal Constitutionalism in the Digital World: An Introduction', *Max Planck Institute for Comparative Public Law & International Law Research Paper,* No. 2023-11, (May 1, 2023), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4433988

M. Thiel, *Wehrhafte Demokratie. Beiträge übert die Regelungen zum Schutze der freiheitlichen demokratischen Grundordnung* (Tübingen: J.C.B. Mohr (Paul Siebeck), 2003).

M. Thiel, *The « Militant Democracy » Principle in Modern Democracies* (Farnham, Burlington: Ashgate, 2009).

J. Tremeau, *La réserve de loi. Compétence législative et constitution*, préf. L. Favoreu (Paris, Economica, Aix-en-Provence : P.U.A.M., coll. Droit public positif, 1997).

M. Troper, 'Pour une définition stipulative du droit, *Droits*, no. 10 (1989), pp. 101-104.

M. Troper, 'La máquina y la norma. Dos modelos de Constitución'*, Doxa: Cuadernos de filosofía del derecho*, n° 22 (1999), pp. 331-347.

N. Tsagourias, *Transnational Constitutionalism. International and European Models*, Cambridge (New York: Cambridge UP, 2007).

A. Tskipurishvili, 'The Right to be Forgotten in the Digital Age', *Geneva Jean Monnet Working Papers* (January 2023), available at : https://www.ceje.ch/files/4316/7696/9004/tskipurishvili-01-2023.pdf

S. Tully, 'A Human Right to Access the Internet? Problems and Prospects', *Human Rights Law Review*, Vol. 14-2 (2014), pp. 175-195.

P. Türk, 'La souveraineté des Etats à l'épreuve d'Internet', *Revue du droit public* (2013), pp. 1401-1640.

P. Türk, 'Définition et enjeux de la souveraineté numérique' (Vie Publique, September 2020), available at : https://www.vie-publique.fr/parole-dexpert/276125-definition-et-enjeux-de-la-souverainete-numerique

P. Türk, 'Les droits et libertés fondamentaux à l'heure du numérique : évolution ou révolution ?', *Annuaire internationale de justice constitutionnelle*, no. 37 (2021), pp. 89-100.

P. Türk, *Les droits et libertés numériques : une nouvelle génération de droits fondamentaux ?* (Paris : LGDJ, coll. Droit et Société, 2023).

P. Türk and Christian Vallar, *La souveraineté numérique : le concept, les enjeux* (Paris: Mare & Martin, 2017).

N. Turner Lee, 'Detecting Racial Bias in Algorithms and Machine Learning', *Journal of Information, Communication and Ethics in Society,* Vol. 16 (2018), pp. 252-260.

M. Tushnet, 'The Possibilities of Comparative Constitutional Law', *The Yale Law Journal*, Vol. 108 (1999), pp. 1225-1309.

G. Tusseau, *Jeremy Bentham et le droit constitutionnel. Une approche de l'utilitarisme juridique* (Paris : L'Harmattan, 2001).

G. Tusseau, *Jeremy Bentham. La guerre des mots*, (Paris : Dalloz, 2011)

G. Tusseau, '« Irregulare aliquod et (tantum non) monstro simile » : remarques sur les heurs et malheurs des dialogues juridictionnels transconstitutionnels', in *Rencontre franco-japonaise autour des transferts de concepts juridiques*, P. Brunet, K. Hasegawa and H. Yamamoto (Paris: Mare & Martin, 2014), pp. 97-140.

G. Tusseau 'An Old English Tale? Bentham's Theory of The Force of a Law' in *The Legal Philosophy and Influence of Jeremy Bentham.* (London: Routledge, 2014), pp. 80-133.

G. Tusseau, *The Legal Philosophy and Influence of Jeremy Bentham* (London: Routledge, 2014).

G. Tusseau, 'Deux dogmes du constitutionnalisme', in *Penser le droit à partir de l'individu. Mélanges en hommage à Elisabeth Zoller* (Paris, Dalloz, 2018), pp. 835-883.

G. Tusseau, 'La constitution « face à face » : quel droit constitutionnel du bonheur pour Jeremy Bentham ?' , in , *Doctrines et réalité(s) du bonheur*, F. Lemaire and S. Blondel (Paris : Mare & Martin, coll. Droit & science politique, 2019), pp. 79-126.

G. Tusseau, *Debating Legal Pluralism and Constitutionalism: New Trajectories for Legal Theory in the Global Age*, coll. Ius Comparatum – Global Studies in Comparative Law, Vol. 41 (Springer Cham, 2020).

G. Tusseau, *Contentieux constitutionnel comparé. Une introduction critique au droit processuel constitutionnel* (Paris La Défense: Lextenso, 2021).

G. Tusseau, 'Between Constructivism and Immanentism: Bentham's Unsettled Conception of Constitutional Law' in *Bentham on Democracy, Courts, and Codification*, P. Schofield and X. Zhaï (Cambridge, Cambridge University Press, 2022), pp. 195-213.

G. Tusseau, '¿Descolonizar el derecho constitucional?: algunas dudas y esperanzas sobre un proyecto', in *Constitucionalismo en clave descolonial* ,L. Estupiñán Achury and L. Balmant Emerique (Bogotá: Universidad Libre, 2022), pp. 215-239.

G. Tusseau, 'The Evolution and *Gestalt* of the French Constitution', in *Ius Publicum Europaeum*, Vol. 2, A. von Bogdandy, P.M. Huber, P. Cruz Villalón and S. Ragone (Oxford: Oxford University Press, forthcoming).

S. Tyulkin, *Militant Democracy. Undemocratic Political Parties and Beyond* (New York, Routledge, 2015).

V

D. Valadés, 'La protección de los derechos fundamentales frente a los particulares', in *La justicia constitucional y su internacionalización*, A. Von Bogdandy, E. Ferrer Mac-Gregor and M. Morales Antoniazzi M., Vol. 1 (2010) pp. 681-710.

D. Valadés, 'La protección de los derechos fundamentales frente a particulares', in *La ciencia del derecho procesal constitucional. Estudios en homenaje a Héctor Fix-Zamudio en sus cincuenta años como investigador del derecho*, E. Ferrer Mac-Gregor and J. Silvero Salgueiro (Asunción: UNAM, 2012), pp. 237-266.

D. Valle-Cruz, N. Plata-Cesar and J. Leonardo González-Ruíz, *Handbook of Research on Applied Artificial Intelligence and Robotics for Government Processes* (IGI Global, 2023).

C. Vande Maelen, E. Lievens, J. Vermeulen and I. Milkaite, 'AI and Data Protection; The Case of Smart Home Assistants', in *Artificial Intelligence and the Law*, J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 173-206.

D. Vanderveken, *Meaning and Speech Acts*, *Vol. 1, Principles of Language Use* (Cambridge: Cambridge University Press, 1990).

D. Vanderveken, *Meaning and Speech Acts*, *Vol. 2 Formal Semantics of Success and Satisfaction* (Cambridge: Cambridge University Press, 1991).

W.W. Van Alstyne*, First Amendment: cases and materials*, 2nd edition, (Westbury, N.Y. : The Foundation Press, 1995).

M. Van Der Haegen, 'Quantitative Legal Prediction: The Future of Dispute Resolution?', in *Artificial Intelligence and the Law*, J. De Bruyne, and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 73-99.

R. Van Loo, 'The Corporation as Courthouse', *Yale Journal on Regulation*, Vol. 33 (2016), pp. 548-601.

S. Van Severen and C. Vander Maelen, 'Killer Robots: Lethal Autonomous Weapons and International Law', in in *Artificial Intelligence and the Law,* J. De Bruyne and C. Vanleenhove (Cambridge, Antwerp, Chicago: Intersentia, 2021) pp. 151-172.

T. Vázquiez Rojas, 'Projet de recherche Algorithmes et administration publique – rapport sur l'inventaire d'outils', document de travail no. 29, (Laboratoire de cyberjustice, 2021).

G. Verschraegen, 'Hybrid Constitutionalism, Fundamental Rights and the State. A Response to Gunther Teubner', *Netherlands Journal of Legal Philosophy*, Vol. 40 (2011), pp. 216-229.

O. Vesterdorf, 'A Constitutional Court for the EU?', *International Journal of Constitutional Law*, Vol. 4 (2006) pp. 607-617.

R. Viciano Pastor and R. Martínez Dalmau, 'El nuevo constitucionalismo latinoamericano: fundamentos para una construcción doctrinal', *Revista general de derecho público comparado*, no. 9 (2011) pp. 1-24.

L. Viellechner, 'Constitutionalism as a Cipher: On the Convergence of Constitutionalist and Pluralist Approaches to the Globalization of Law', *Goettingen Journal of International Law*, Vol. 4 (2012), pp. 599-623.

C. Villani, *Donner un sens à l'intelligence artificielle. Pour une stratégie nationale et européenne, Mission confiée par le Premier Ministre* (March 2018), available at : https://www.vie-publique.fr/sites/default/files/rapport/pdf/184000159.pdf

A. Von Bogdandy and J. Bast, *Principles of European Constitutional Law*, 2nd ed. (Oxford, Porland: Hart Publishing, München: C.H. Beck, 2010).

A. Vranaki, *Regulating Social Network Sites. Data Protection, Copyright and Power* (Cheltenham: Edward Elgar, 2022).

R. Vuorikari, S. Kluzer and Y. Punie, *DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes* (Luxembourg: Publications Office of the European Union, 2022), available at : https://publications.jrc.ec.europa.eu/repository/handle/JRC128415

W

S. Wachter et al., 'Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation', *International Data Privacy Law*, Vol. 7, Issue 2, (May 2017).

M. Waddington, 'Machine-consumable legislation: A legislative drafter's perspective – human v artificial intelligence', *The Loophole Journal of Commonwealth Association of Legislative Counsel*, Vol. 21 (2019).

R. Wahl, 'In Defence of "Constitution" ' in *The Twilight of Constitutionalism?*, P. Dobner and M. Loughlin (Oxford UP, 2010), pp. 220-242.

N. Walker, 'Le constitutionnalisme multiniveaux' *in Traité international de droit constitutionnel*, Vol. 3, M. Troper and D. Chagnollaud D. (Paris: Dalloz, 2003), pp. 441-462.

N. Walker 'Taking Constitutionalism Beyond the State', *Political Studies*, Vol. 56 (2008), pp. 519-543.

N. Walker, 'Beyond the Holistic Constitution?', in *The Twilight of Constitutionalism?*, P. Dobner and M. Loughlin (Oxford UP, 2010), p. 291-308.

M. Walzer, *Thick and Thin: Moral Argument at Home and Abroad* (University of Notre Dame Press, 1999).

I. Ward, 'Beyond Constitutionalism: The Search for a European Political Imagination', *European LJ*, Vol. 7 (2001), p. 24-40.

R.H. Weber and R. Shawn Gunnarson, 'A Constitutional Solution for Internet Governance', *The Columbia Science and Technology LR*, Vol. 14 (2013), pp. 1-71.

J.H. Weiler, *The Constitution of Europe. 'Do the New Clothes Have an Emperor?' and Other Essays on European Integration* (Cambridge: Cambridge UP, 1999).

J.H. Weiler and M. Wind, *European Constitutionalism Beyond the State* (Cambridge: Cambridge UP, 2003).

J.H. Weiler, 'Federalism and Constitutionalism: Europe's Sonderweg', *Jean Monnet Chair Working Paper,* n° 10/00 (2000), available at : https://jeanmonnetprogram.org/archive/papers/00/001001.html (last consulted November 2021).

S. Weymouth, *Digital Globalization: Politics, Policy, and a Governance Paradox* (Cambridge: Cambridge University Press, 2023).

A.C. Witt, 'The Digital Markets Act: Regulating the Wild West', *Common Market Law Review*, Vol. 60-3 (2023), pp. 625-666.

A. Winfield, 'Overview of codes of ethics for AI : A Round Up of Robotics and AI Ethics' (Alan Winfield's Web Log, 2017), available at : http//alanwinfield.blogspot.com/2017/12/a-round-up-of robotics-and-ai-ethics.html

S. Wolfram, 'Computational Law, Symbolic Discourse, and the AI Constitution', in *Ethics of Artificial Intelligence*, S. Matthew Liao (Oxford: Oxford UP, 2020), pp. 155-180.

D. Wong and L. Floridi, 'Meta's Oversight Board: A Review and Critical Assessment', *Minds and Machines* (2022), pp. 261-284.

S.C Woolley and P.N. Howard, *Computational Propaganda. Political Parties, Politicians, and Political Manipulation on Social Media* (Oxford: Oxford UP, 2018).

N. Wright 'How Artificial Intelligence will Reshape the Global Order' (Foreign Affairs*,* 10th July 2018).

T. Wu, 'Network neutrality, broadband discrimination', *Journal of Telecommunications and High Technology Law,* Vol 2 (2003), pp. 141–176.

Y

O. Yasuaki, 'A Transcivilizational Perspective on Global Legal Order in the Twenty-first Century: A Way to Overcome West-centric and Judiciary-centric Deficits in International Legal Thoughts', in *Towards World Constitutionalism. Issues in the Legal Ordering of the World Community,* R. St. J. Macdonald and D.M. Johnston (Leiden: M. Nijhoff, 2005) pp. 151-189.

K. Yeung and M. Lodge, *Algorithmic Regulation* (Oxford University Press, 2019).

J.-R. Yeh and W.-C. Chang, 'The Emergence of Transnational Constitutionalism: Its Features, Challenges, and Solutions', *Penn State International LR*, Vol. 27 (2008), pp. 89-124.

K. Yilma, Digital Privacy and Virtues of Multilateral Digital Constitutionalism – Preliminary Thoughts, *International Journal of Law and Information Technology*, Vol. 25 (2017), pp. 115-138.

R. Yuste, S. Goering, B. Arcas et al., 'Four ethical priorities for neurotechnologies and AI', *Nature*, no. 551 (2017), pp. 159-163.

Z

M. Zalnieriute, 'An international constitutional moment for data privacy in the times of mass-surveillance', *International Journal of Law and Information Technology*, Vol. 23-2 (2015), pp. 99-133.

M. Zalnieriute, 'Human Rights Rhetoric in Global Internet Governance: New ICANN Bylaw on Human Rights', *Harvard Business Law Review*, Vol. 10 (2020), pp. 1-40.

S. Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (London: Profile Books, 2019).

F. Zuideveen Borgesius, 'Discrimination, Artificial Intelligence, and Algorithmic Decision-Making' (Strasbourg: Council of Europe, 2019).

P. Zumbansen, 'Carving Out Typologies. Accounting for Differences Accross Systems: Towards a Methodology of Transnational Constitutionalism', in *Oxford Handbook of Comparative Constitutional Law*, M. Rosenfeld and A. Sajo (Oxford: Oxford UP, 2012) pp. 75-97.

P. Zumbansen, 'Varieties of Comparative and Global Constitutionalism: The Emergence of a Transnational Legal-Pluralist-Order', *Global Constitutionalism*, Vol. 1 (2012), pp. 16-52.

A. Zúñiga-Fajuri, L. Villacivencio Miranda, D. Zaror Miralles and Ricardo Salas Venegas, 'Neurorights in Chile: Between Neuroscience and Legal Science', in *Regulating Neuroscience. Transnational Legal Challenges*, M. Hevia (Amsterdam: Academic Press, 2021), pp. 165-179.

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