

Digital Constitutionalism in the States-as-Information-Platforms Context:

A New Programme, the Acknowledgement of ‘Platform Rights’

Vagelis Papakonstantinou

Abstract: Constitutions (much more, constitutionalism) touch upon each and every aspect of human life, hence unavoidably a brief text about such broad, and central, topics as constitutions, the state, individuals and human rights either has to be laser-focused, and thus lack breadth, or attempt a helicopter view, and thus lack depth. This text, for better or worse, subscribes to the latter category. Specifically, a new approach to all of these topics will be attempted, based on the fundamental premise that states are, and always have been, information platforms for their citizens. It is under this viewpoint and within this context that the following analysis unfolds. Its overarching idea is the juxtaposition of the analogue and the digital worlds, in sections 1 and 2 respectively, in order to address the age-old question of natural rights (Do they exist? Are human rights natural or given to humans?) in the digital world – therefore, within a digital constitutionalism context. As it will be explained in section 3, certain “platform rights” are indeed natural to individuals on the information platforms that are their states.

A. Introduction

Constitutions (or rather, constitutionalism) touch upon each and every aspect of human life. Hence, any brief text about such broad and central topics as constitutions, the state, individuals and human rights either has to be laser-focused, and thus lack breadth, or needs to attempt a helicopter view, and thus lack depth. This text, for better or worse, falls into to the latter category. Specifically, it attempts to take a new approach to all these

topics, based on the fundamental premise that states are, and always have been, information platforms for their citizens.¹

It is from this viewpoint and within this context that the following analysis unfolds. It juxtaposes the analogue and the digital worlds, in Sections B and C respectively, in order to address the age-old questions of natural rights (Do they exist? Are human rights natural or given to humans?) in the digital world—that is, within a digital constitutionalism context. As will be explained in Section D, certain ‘platform rights’ are indeed natural to the information platforms that are states.

B. The analogue world

Digital technologies have made a new perspective possible. The analogue world, the natural world as we know it, that we as humans live in and have lived in since we first appeared on the planet, can now be seen through a different lens, that of information processing. Old assumptions need to be reassessed and new ideas, among others, regarding the state and its definition or individuals and their rights, can now be attempted. Specifically, the state is an obvious point of departure for this analysis, with constitutionalism being intrinsically connected to it, as will be seen in Section B.III.

I. The state is, and always has been, an information platform for its citizens

States are, and always have been, nothing more than information platforms for their citizens. They are information-processing infrastructures, human fictions that have materialised in the analogue world. This definition applies as much today, when the analogue world is being challenged by the digital one, as in the depths of human history, when the first states emerged.

States are information platforms for their citizens in the sense that they (co-)create, store and disseminate information for them. How do they do this? The relevant mechanism is so common that it is easily overlooked. Immediately at birth every human is given a name. While it may be the

1 Within the context of a new political philosophy of information, see Vagelis Papakonstantinou, "States as Information Platforms: A Political Theory of Information," in *Data Protection and Privacy, Volume 16: Ideas That Drive Our Digital World*, ed. Hideyuki Matsumi et al. (London: Bloomsbury Publishing, 2024).

parents that do the name-giving, it is actually the state into which the human was born that makes this name possible. A name is useless without a state to guarantee it, tacitly, each time one human communicates with another. At the same time, meaning at birth, every human is provided with a citizenship: the state that guarantees the name also bestows its citizenship on that same human. The state is therefore an individualisation mechanism, the only one known to humans since they first appeared on the planet (or, at least, since they developed language). In essence, states turn humans into individuals, uniquely identifiable across space and time.

Once this has been done, whenever any two individuals communicate a third, silent, interlocutor is implied. This is the state, and it enables their communication. The state warrants that A is A and B is B, so as for A and B to be able to communicate. Unless this guarantee is given, there is no way for these two individuals to be certain that the other party is actually who it claims to be, and thus to communicate. It is the silent, ever-present third party, the state, that enables this, and thus makes any human contact, possible. Only in this way can humans live a meaningful life (at least, as we know it, separately from animals or God, neither of which have ever needed a state).

This definition of states as being information platforms for their citizens applies as much today as in the distant past of human existence. States therefore formed naturally, automatically and immediately at the moment when two humans started to communicate. States are natural to humans. They are not artificial constructs; they are not the result of agreements (as most prominently claimed by Social Contract theory)² or of human rational thinking in the form of choosing among many alternatives.

Subsequently this individualisation information is enriched, depending on the state, the period in human history and, of course, the individual him or herself. Family life, property ownership, education, health and professional life are all pieces of information that are co-created and processed for individuals by the information platform that is their state. Individuals,

2 There is, of course, a vast bibliography on the Social Contract theory, that started, schematically, with the works of Hobbes, Locke and Rousseau and continues to this day, for example with the works of Rawls; indicatively, see Christopher W. Morris, ed., *The social contract theorists: Critical essays on Hobbes, Locke, and Rousseau* (Oxford: Rowman & Littlefield, 1999); David Boucher and Paul Kelly, eds., *The social contract from Hobbes to Rawls* (London and New York: Routledge, 1994 (2005)); Peter J. Steinberger, "Hobbes, Rousseau and the Modern Conception of the State," *The Journal of Politics* 70, no. 3 (2008).

to live a meaningful life, need their states to keep this information safely stored for the term of their lives and authoritatively transmittable to any third party they so choose. Should the state not be able to carry out these actions, or should this information be lost or tampered with or not be available to use for interaction with others, individuals will not only be unable to live a meaningful life but will also face a serious risk to their survival.

However, states are not only personal-information processing infrastructures—hence the use of the term ‘platform’ to define them. States make understanding the analogue world possible for their citizens. It is states that create language (i.e. the names of the things around them), metrics, money, and all the other human mechanisms and conventions that have been devised to help citizens to understand, and control, their analogue-world environment. Through their use, the information processing necessary for meaningful human life is possible. As such, each state is different to and distinguishable from other states: they are essentially platforms, in the literal or metaphorical meaning, on which people, or things, can stand. Using states as information platforms, individuals can process information pertaining to other individuals and things, share beliefs and ideas, and live under common rules (laws).

How do states accomplish all this? Basically, through control of any and all information processing that takes place on their platforms. States have access to, and therefore potential control over, any and all information they co-create with their citizens and which they safely store and authoritatively transmit for them. In the analogue world control is exercised through well-known means: in essence, any professional activity, any change in family life, any academic accreditation, any travel or relocation of citizens, as well as most of their health management, requires one type or another of state involvement. This applies as much today as thousands of years ago, when the first humans emerged—it is only the volume of information that differs, which varies depending on the moment in time and the location of the state concerned. Otherwise, the state has complete control, through its necessary involvement, of all information processing on its platform; that is, the state has never been questioned or challenged in the analogue world—until today.

II. Individuals, individualisation and individualism

If states are information platforms for their citizens, humans are information-processing entities ('informational beings') that can and will process information on their respective platforms (i.e. their states) whenever the opportunity arises. In fact, the analogue world can be viewed as a (closed, in the sense that the information on it is finite) system of information, whereby human life is the sum of our information processing.

What is unique, however, to humans is the need to augment their information processing. Humans have a constant need to process new information, and this augments their information processing both quantitatively and qualitatively. New information leads to the development of new processing tools, which in turn make further new information processing possible, in an endless virtuous cycle. From the time when our ancestors drew on the walls of caves and improved their food gathering skills to the Greco-Roman age, the Renaissance and the Industrial Revolution, humans have basically always been trying, and succeeding, to constantly increase their information processing abilities and to keep processing new information. In essence, human history (and culture) has been caused by (and is best viewed as) a continuous increase in the information processing carried out by humans.

However, humans process information individually—not collectively, as would be the case, for example, with units in a hive. It is each one of us separately who needs to increase his/her own information processing (one cannot hope to process all the information on the planet). It is not in human nature to be absorbed into a single all-encompassing entity, blindly and anonymously contributing to an overall processing increase, but to practice this individually—regardless of the fact that the sum of individual processing achieves the increase of humanity's overall processing capacity anyway. Human individualisation is only achievable through states. It is only through the individualisation mechanism seen above (through the granting of a name and citizenship) that humans become individuals, uniquely identifiable in space and time, and thus able to exponentially increase their individual information-processing capacity.

The above demonstrates how humans, separate from and different to any other animal (or, God), became individuals. This process of individualisation, which is natural to humans, ought not to be confused with individualism and individuality. These concepts reflect a specific political

philosophy that was developed in (Western) Antiquity³ and which is very much alive today, underpinning modern life. Notwithstanding differences in approaches that can at times be significant, both notions build on a fundamental theoretical dichotomy: an individual is composed of a private and a public sphere, a private and a public self. The public self is external, and thus needs to remain flexible so as to conform and comply with societal, political or other circumstances. In contrast, the inner self is internal, private and personal and, to a larger or smaller extent, inalienable, and thus needs to be protected and safeguarded. Acknowledgement of these two selves, and the exact relationship between them, more or less delineates much of political philosophy (and religion) and is the cornerstone of modern thinking and politics.

Nevertheless, if seen from the point of view of the information platform that is the state, this dichotomy, basically, does not exist. This is because states, as seen in Section B.I, have access to and exercise control over any and all information processing taking place on their platforms. The state is, in fact, omnipresent. To the state there is no private and public sphere of individuals—there is only the information processing of humans and the things that exist on its platform. The state is the necessary party to all information processing carried out by its citizens, be the information external or internal (the latter being processed as soon as it materialises in the analogue world). Or, in other words, the state knows all and can control everything anyway. It cannot *not* do so, being an indispensable part of the information creation and processing of each and every individual living on the platform.

Consequently, individualism and individuality are little other than the externally imposed exercise of restraint by the state. Or to be clearer, they are political theories under which the state, although having access to and potential control over all information and information processing on its platform, accepts restrictions on its own processing.⁴ The state is told which information to pretend to ignore, to abstain from further processing or to continue processing but only at a minimal level. However, seen in this way, the artificiality of this assumption becomes obvious: any such restrictions

3 Broadly, since the time of Plato and Aristotle; before them, even within democratic Ancient Greek city-states, unity of the citizen with his/her city was the norm, an idea not far removed from that of contemporary theocratic and absolutist political systems.

4 That is, the processing carried out by the government, which controls the state, and not the state itself, it (the state) being merely a (passive) information platform, a processing infrastructure.

imposed by a political system are not natural to the information platform that is the state, but are introduced ('posited') by a specific political philosophy. How this affects human rights and constitutionalism in the broader sense will be seen in the subsequent section.

III. Human rights, constitutions and constitutionalism

If states are information platforms for their citizens and individuals wish to constantly process new information, some rules for this processing are necessary. How these rules are established (whether by nature, revealed by God or agreed in written law), how elaborate or otherwise they are, and how permissive or restrictive they are for some or all individuals, are all questions that are crucial and have preoccupied humanity since its appearance on the planet. However, the content of these rules should, for a moment, be put aside in order to pay attention to the fact of the existence of the rules *per se*. There is no information processing going on the platform that is the state that is not subject to rules. Rules for processing, in other words, are natural on the information platform that is the state. These rules regulate all information processing on the platform, meaning that they specify whether a particular form of processing is allowed to take place, by whom and under which conditions.

Having established the existence of rules, we can now turn our focus to their emergence. How are these rules created? Notwithstanding their exact form each time (meaning whether they are written or perceived), these rules are either invented by humans, for whatever reason, or are inherent on the platform that is the state. The former, meaning the invented rules, can take (and have taken, throughout human history) any direction: they can be more or less equal for all citizens, more or less fair, more or less liberal, and so on. They can be stated in writing, as in laws, or perceived, as in the case of customs. They can be as elaborate and detailed as they are in modern states, or as basic as the Code of Hammurabi.

Not all rules are invented, however: a few are inherent on the information platform that is the state. For example, because all humans receive a name and a citizenship at birth, all humans are born equal with regard to their state. Also, because all humans are born equal in their state, all are born free from the control of other humans in their state. In addition, because states need to keep the information on their citizens safely stored

and protected for the term of their lives (humans being informational beings), security of the person is inherent on the information platform that is the state. In other words, these rules are natural in states-as-information-platforms, they are the 'platform(-born) rights' given to all individualised humans, notwithstanding whether any given state at any given time in human history has acknowledged them. Such platform rights, although they are born naturally of the platform that is the state (and remembering that the state is itself natural to humans), ought not be confused with 'natural rights' within the positive and natural human rights dichotomy. Natural rights, 'that may be appealed to whether or not embodied in the law of any community'⁵ are the result of one or another type of human reasoning ('practical reasonableness' in Finnis's words)⁶ that nevertheless cannot be taken for granted over the long and extremely varied haul of human history and culture.

In modern states acknowledgement of the rules applicable to information processing on the platform is made formally and in writing through the legal system, at the top of which stands the constitution.⁷ Although the role and content of modern constitutions remains contested,⁸ acknowledgement in their text of the rights afforded to their citizens is an integral part common to all. Importantly, however, as noted above, platform rights are not necessarily acknowledged in constitutions—a state may well ignore them within its political system, as has frequently been the case throughout human history. It is therefore up to constitution-drafting, or, constitutionalism, to deal with them or not, as the case may be.

Constitutionalism and constitutions have triumphed in the modern world, there being practically no state today that does not have a constitution, but their triumph cannot hide their temporality. Constitutions are a relatively recent phenomenon in human history, being only a few hundred years old. As such, constitutionalism remains a contested term. Specifically, it is still unclear whether the term is connected to all constitution-drafting⁹

5 See John Finnis, *Natural law and natural rights* (Oxford: Oxford University Press, 2011), 199.

6 Finnis, *Natural law and natural rights*, 100ff.

7 See Hans Kelsen, *General Theory of Law and State* (New Brunswick (USA) and London (UK): Transaction Publishers, 1945 (2006)), 115.

8 See, for example, Nicholas William Barber, *The constitutional state* (Oxford: Oxford University Press, 2010), 75ff.

9 See, for example, Barber, *The constitutional state*, xiii.

or only to constitutions that limit the power of the state.¹⁰ The latter form of constitutionalism is ultimately connected to the existence of a democratic and liberal state, one that includes among its foundational values democracy, the protection of human rights and the upholding of the rule of law.¹¹ If this is the case, however, then constitutionalism in the analogue world is basically the implementation of liberal and democratic political theory in state practice—complete with the artificial assumptions seen above (in Sections B.I and B.II) of individuals' public and private selves, or the existence of a social contract to justify state formation. This being the triumphant, dominant model in the analogue world today, it is perhaps of little practical use to contest it and showcase its limitations through a political philosophy of information—after all, it may well be that the digital world, and digital constitutionalism, will do this anyway.

C. The digital world

The digital world is something new and unprecedented for humanity, a transformational and revolutionary development that can only be compared with the invention of writing. All the assumptions that humans have been living with for the thousands of years of their recorded history in the analogue world, all of our beliefs and ideas need to be reassessed in view of the entirely new reality that has reached us, broadly speaking, at the turn of the twenty-first century. This is not simply a matter of an Information Revolution following the Industrial Revolution, it is not simply the development of new tools that will enable humanity to reach its imaginable objectives. It is the creation of an entirely new world, an entirely different reality that humans never imagined was available—and are still struggling to come to terms with.

As such, the emergence of the digital world can be viewed as the fourth of the milestone moments in humanity's development so far. The first one is only conceptual, it occurred when humans started talking to each other

10 See, for example, Richard S Kay, "American constitutionalism," in *Constitutionalism: Philosophical Foundations*, ed. Alexander Larry, Cambridge Studies in Philosophy and Law (Cambridge: Cambridge University Press, 1998), 16; Scott Gordon, *Controlling the state: Constitutionalism from ancient Athens to today* (Cambridge, Massachusetts: Harvard University Press, 1999), 5; Dieter Grimm, *Constitutionalism: Past, Present, and Future* (Oxford: Oxford University Press, 2016), 61.

11 See Edoardo Celeste, "Digital constitutionalism: A new systematic theorisation," *International Review of Law, Computers & Technology* 33, no. 1 (2019): 12.

using language and acquired self-consciousness; the second occurred when humans developed agriculture, some 10,000 years ago; the third occurred when writing was invented, some 5,000 years ago. We can, schematically, place the fourth one, the emergence of the digital world, around the year 2000.

I. A world without states

Completely in contrast with the analogue world that is,¹² and always has been, state-organised, there are no states in the digital world. The digital world was created from scratch by private, public and semi-public actors who did not care to transpose into the digital world the state organisation already known to them from the analogue world. On the contrary, there was a time, during the early years of the Internet, when the new digital world was imagined specifically as being a non-state one.¹³ States, too, kept away from the development of the digital world, and even today focus on the regulation of large actors in the field (gatekeepers)¹⁴ the protection of specific state organisations (critical infrastructures)¹⁵ and the use of the digital world for the improvement of services to their citizens (e-government), rather than, so far at least, as a space for the exercise of state authority and power.

This completely overturns the analogue-world model known to humanity until now. Not only have humans always been connected to states, states being natural to them, but states have also always exercised control over information processing on their platforms—something that is no longer possible in the digital world. As seen in Section B.I, in the analogue world states control any and all information processing taking place on their

12 See, for example, Morris' "We live in a world of states" Christopher W Morris, *An essay on the modern state* (Cambridge University Press, 2002).

13 See, for example, John Perry Barlow, "A Declaration of the Independence of Cyberspace," *Duke Law & Technology Review* 18 (1996 (2019)).

14 See, for example, EU's DMA (Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act)).

15 See, for example, EU's NIS2 Directive (Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1772, and repealing Directive (EU) 2016/1148 (NIS 2 Directive)).

platforms, being the necessary, implied, third party in all information processing regarding their citizens' professional and family lives, academic and vocational achievements, travel and so on. However, this is no longer the case in the digital world. Today an individual may reside physically in a state but study and work in the digital world, without the individual's state participation in or even awareness of the relevant information flows.

This fundamental change can be clearly illustrated through reference to Leviathan, the modern state's iconic concretisation in Hobbes's monumental book.¹⁶ On its well-known frontispiece, the state is depicted as a giant completely dominating the scene. The citizens composing the giant have their backs to the viewer, facing Leviathan itself, because they can see (and process information) only through it. This is no longer the case: today citizens can look outwards, to the digital world, without Leviathan even being aware of it—much less dominating it too.

As such, this development is unprecedented in humanity's history. If a parallel had to be found with anything even remotely similar in the past, it could perhaps be the period of the existence of company-states, the workaround that Western states used in the seventeenth century to colonise Asia and the Americas. Because colonisation required efforts that greatly surpassed states' (processing) capacity at the time, the task was outsourced to private companies—but control of the colonies was immediately recovered by the relevant state as soon as its capacity had increased sufficiently.¹⁷ It could therefore be the case that ours is an intermediate period during which states are allowing private parties to 'colonise' a new world, the digital world, about which for the moment they (the states) know and can do very little—with the relevant powers over this world to be recovered as soon as this situation changes. Whatever the case may be, the fact remains that for the first time ever individuals are able to live (even part of) their lives outside the gaze and control of their state.

16 Thomas Hobbes, *Leviathan*, ed. Christopher Brooke (London: Penguin, 1651 (2017)).

17 On the topic of company-states see, indicatively, Philip J Stern, *The company-state: corporate sovereignty and the early modern foundations of the British empire in India* (Oxford: Oxford University Press, 2011); Andrew Phillips and Jason Campbell Sharman, *Outsourcing empire: How company-states made the modern world* (Princeton and Oxford: Princeton University Press, 2020).

II. A world without individuals

The analogue-world notion of an individual safe is not safe in the digital world either. In effect, no current idea or concept of individuals or individuality remains unchallenged. The first to be attacked is the notion of individuality, specifically human uniqueness. In the analogue world the only conscious actors are humans. Information is, of course, also processed by other animals (all life being information processing), but actions that significantly affect the natural world are carried out exclusively by humans—including the organisations created and run by them. This is no longer the case in the digital world. In it, actions (information processing) may also be carried out by artificial informational beings (e.g. software agents) that may have been created by humans but from some point on act on their own. A robot automatically indexing webpages or a computer virus (not to mention artificial intelligence software) may have been created by humans to carry out a preset range of activities, but the fact remains that even within these strictly defined boundaries these informational beings process information and act on their own initiative. In other words, in the digital world humans are not the only beings processing information. Whether their distinctive characteristic, of constantly increasing their information processing, retains its validity in a world containing artificial informational beings (similarly to the situation of animals versus humans in the analogue world) remains to be seen.

The second notion to be challenged is individual unity, and thus accountability. In the analogue world a human becomes an individual through the authority of his or her state and this individual is who he or she remains for the rest of his or her life. Although an individual may change his or her natural or psychological traits or even name and citizenship, a trail will always lead, and refer to uniquely, to that single initial identity. Generally speaking, only actors and other small circles of individuals (e.g. priests) are likely to change their identity, but usually for very specific purposes and in situations that are only applicable to a specific circle of people. This is no longer the case in the digital world, where anonymity is (for the moment, at least) not only possible for everybody but having multiple identities is encouraged. This change, other than its psychological and societal repercussions, which we are still trying to come to terms with, also affects traditional and fundamental legal notions such as accountability. For example, at what point are digital identities bound to an individual? Is

crime, and its damages, assessable in the digital world similarly to how it is assessed in the analogue world?

What is more, the traditional dichotomy of an individual's private and personal life is also challenged in the digital world. As seen in Section B.II, in the analogue world, philosophy and religion have for centuries worked on the assumption that an individual has an inner, personal and private self and an external, social one, each of them living different lives and following different rules. However, this distinction was made possible by (if not developed because of) externalities: a number of external circumstances that alluded to and signalled a private life, for example, a home, closed doors, reading in silence, meditation and so on. In other words, because humans behave externally in a specific way (i.e. they 'hide' in their homes, close the doors to their rooms, read in silence (at least once books became widely available), find refuge in temples etc.), it was possible to create and apply a theory on the above dichotomy. However, in the digital world these externalities no longer exist—or, to put it better, new and unprecedented externalities that replace them are being released every day. In addition, the notions of both 'public' and 'private' are being irretrievably eroded in the digital world. As regards the 'private', the externalities that created commonly accepted boundaries in the analogue world are now long gone: in practice each individual is given control over what is considered private (information) but is left to decide him or herself whether, when and how to share (i.e. to give consent)¹⁸ or not, thus blurring the common understanding of the term. Finally, what was considered 'public' in the analogue world, meaning in most cases information shared among a closed circle of people and a short life expectancy for the information concerned (printed on paper, at best), has now been transformed into global access for (digitised) perpetuity.

III. A world without finite information

Even more important than the erosion of the traditional notions of the state and individuals, however, is the transformation of information processing itself in the digital world. Specifically, in the analogue world information

18 It should not be forgotten that (data) privacy laws did not emerge until the 1970s and only then due the advent of information technology, even though they regulate an issue that has troubled humans since they first appeared on earth.

is finite, whereas in the digital world it is infinite. In the analogue world, the natural world around us, there is a limited number of things (be they artefacts or natural resources) that humans can process information about. In other words, there is a finite number of cars, houses, tables and chairs, televisions, but also plots of land, fruit, minerals and so on, on the planet. In essence, the analogue world is a closed system of information with a fixed, preset number of processing operations possible (with exactly how many being dependent on the moment in time and the specific state in question).

This is a fundamental, basic understanding in contemporary philosophy, religion and human existence. Within a closed system of information, the processing of one human is detrimental to, reductive of, the processing of another. Because humans need to augment their information processing, they will process information on the things around them whenever possible, exercising control over them as part of this processing. Control means to be able to allow or prohibit processing of that same thing by others (property rights). In other words, if there is a fixed number of houses or plots of land or cars to be had on the planet, if one individual amasses them all (i.e. controls them by having property rights over them), there will be none left for anyone else. It is this understanding, this inherent scarcity of resources in the analogue world that implicitly underlies any political philosophy (for example, the 'state of nature', where resource conflict is perpetual),¹⁹ ethics (the meaning of justice, fairness, the *summum bonum*), morality, religion, economics and so on.

This fundamental understanding is overturned in the digital world, where information is infinite. New information in the digital world can be created in perpetuity by any human.²⁰ Digitised versions of analogue-

19 Most prominently found on the basis of Hobbes's theory (see, for example, Gregory S Kavka, "Hobbes's War of all against all," in *The Social Contract Theorists: Critical Essays on Hobbes, Locke, and Rousseau*, ed. Christopher W. Morris (Lanham Boulder New York Oxford: Rowman & Littlefield, 1999).), the topic of an, imagined, state of nature however being central (and, mostly, problematic) among all social contract theorists.

20 It is, of course, understood that the digital world is created by computers, which exist in the analogue world and therefore their number is finite, and thus possibly controllable (as is also true of the energy they need to operate). However, even ignoring the fact that computer ownership is widely dispersed (with, effectively, most humans on the planet owning more than one), the digital world is in fact created by their combined processing power, and, for the moment at least, it is difficult to imagine that this will become extinct.

world information can similarly be created and processed infinitely.²¹ In other words, in the analogue world if someone eats all the fruit on the planet there will be no other fruit for anybody to eat; in the digital world, if someone excludes others from processing specific information, those affected can create other information to process for themselves. Even with the suitability of this particular information, the special experience offered by it or any other attempt at uniqueness (and, thus, scarcity) taken into consideration, the fact remains that possibilities for information processing for humans are infinitely greater in the digital than in the analogue world. This is a life-changing worldview that overturns development for humans and as noted in the introduction to this section, marks the fourth of the milestone moments in humanity's development so far.

D. A concluding proposal: a new programme for digital constitutionalism, the acknowledgement of platform rights

It needs to be decided whether the intention of constitutionalism, triumphant today in the analogue world, is about constitution-drafting in general or specifically about limiting the power of the state. Even if it is the latter, however, it still remains to be decided whether constitutionalism specifically focuses on human rights and values or whether it encompasses all the management functions of state power as well (for example, the separation of powers, the organisation of government etc.). Although in principle the term 'constitutionalism' would be expected to cover all the chapters found in modern constitutions, this is apparently not necessarily the case. For example, the European Declaration on Digital Rights and Principles has been celebrated as a milestone in (digital) constitutionalism,²² even though it focuses exclusively on human rights and values.

21 Intellectual property rights notwithstanding, because, first, they apply only to a very small subset of the overall digitised information and, second, because they gradually expire anyway.

22 See Cristina Cocito and Paul De Hert, "The transformative nature of the EU Declaration on Digital Rights and Principles: Replacing the old paradigm (normative equivalence of rights)," *Computer Law & Security Review* 50 (2023); Giovanni De Gregorio, "The Declaration on European Digital Rights and Principles: A first analysis from digital constitutionalism," *The Digital Constitutionalist*, 2022, <https://digi-con.org/the-declaration-on-european-digital-rights-and-principles-a-first-analysis-from-digital-constitutionalism/>.

Digital constitutionalism, therefore, is unavoidably burdened by this vagueness. This, however, is not its only problem. Professing the ‘digital’ denomination, it promises to bring traditional constitutionalism into the digital world. While the confirmation that fundamental human values such as ‘human dignity, freedom, equality and solidarity’²³ still apply in the digital world is undoubtedly of the highest importance, in order to retain the constitutional context, the basic terms of reference of constitutions need to continue to apply. However, as seen above, this is no longer the case. In the digital world the traditional notion of the state is eroded; the same is true of the traditional notion of an individual. More significantly, however, the basic analogue-world understanding of the scarcity of resources is reversed in the digital world. Under these circumstances, how can constitutionalism be adapted for the digital world, if the foundations upon which it is built are profoundly shaken?

In view of this possibly being a transitory, interim stage (the digital world having a life of only a few decades) before the state reaffirms its authority in the digital world and individuals also digitally reclaim their unique individuality in space and time, digital constitutionalism may do well to focus only on those aspects of constitutionalism that are most pressing—with human rights and values coming first to mind—during the construction of the digital world. The European Declaration, therefore, is a good example in this regard. Nevertheless, which values and which human rights should be transposed from the analogue to the digital world? The entire list of analogue-world fundamental rights? All human values applicable in liberal and democratic states? Even if such a (political) decision was reached, are all such rights suitable for simple transposition from the analogue to the digital world?

This does not seem to be the case. Not all analogue-world fundamental human rights and values are transposable as such to the digital world—simply adding the term ‘digital’ in front of them does not necessarily work. The basic right to security is a good example in this regard. Security of the person is a well-known and defined right in the analogue world, because, after living for thousands of years on the planet, humans know well when and how they can be threatened, what the risk is, and how best to deal with it—and what damage violence causes if it occurs. None of these

23 See par. 1 of the Preamble of the European Declaration on Digital Rights and Freedoms.

assumptions applies in the digital world. There humans may not even be aware that they are being threatened; even if they do know, most of the time they may not be able to assess the threat or the damage might not appear until long after a threat has been realised. This being the case, how could the right to security simply be transposed as a right to (cyber)security?²⁴

This could therefore be an objective of a new programme for digital constitutionalism: to focus, for an interim period, only on human rights and values, as part of traditional constitutionalism, in order to identify similarities and differences in the analogue and the digital worlds and to assist in transposing traditional human rights and values into the digital realm, identifying which among them are suitable for transposition (and under which conditions) and which are not. In this context, platform rights, that is, the rights inherent on the information platform that is the state, are obvious candidates for this (re)assessment exercise. Because they are derived from an information-processing environment, these rights are most suitable for transposition to the digital world, which is itself an information-processing system. Because they are natural to humans, these rights have to be transposed into the digital world too, because humans, as informational beings, are active there. And, because states also continue to provide an indispensable and irreplaceable individualisation mechanism to humans in the digital world (ultimately, for the moment at least, all human activity in the digital world has to materialise in the analogue world in order to benefit the humans concerned), it is state power that will guarantee their application, in spite of state control being severely challenged.

A transitory, interim period in the advent of monumental change necessitates short-term, principle-driven decisions. With the digital world not having fully settled, nor showing any signs of doing so any time soon, legal rights and principles have to focus on the bigger picture, making use of whatever new perspectives and reassessments of the past have already been made possible. It may well be the case that the state will soon claim its power and authority in the digital world, as in the analogue one, asserting itself as soon as it becomes possible, as was the case in the period of company-state colonisation. Until that time, however, digital constitutionalism has a critical and paramount mission: to provide in the digital world an

24 See also Vagelis Papakonstantinou, "Cybersecurity as praxis and as a state: The EU law path towards acknowledgement of a new right to cybersecurity?," *Computer Law & Security Review* 44 (2022).

as-appropriate confirmation of the fundamental human rights and values that have been developed over the centuries in the analogue world.