

Protecting the “*Homo Digitalis*”

Antoni Abat Ninet¹

Abstract: This paper analyses from a legal and philosophical perspective the appearance of a new human species, the so-called *Homo Digitalis*, a *Homo Sapiens* permanently interconnected with others throughout I.T devices. Twenty-four hours a day. Three hundred and sixty-five days a year, living in a world of ones and zeros. We all are inexorably the new-born *Homo Digitalis*, or as some authors define it, post-humans, and there is no possible opposition to this Darwinist evolution, or between the *Homo digitalis* and other citizens. The first section deals with the relationship between technique (*τεχνη*), technology and humanity, a relation that is ancient as philosophy. The starting point is the pre-Socratic philosophers, Plato and Aristotle, and it ends by analysing the relation of the three concepts in modernity and post-modernity (Weber, Heidegger and Marcuse). The second section deals with the definition of the *Homo Digitalis* from an evolution of Sartori’s *Homo Videns*. The paper ends by exposing the latest judicial decisions, domestic and international legislation to protecting citizens (as new-born *Homo Digitalis*) from wrongful use of technology.

Technē, Technology and Humanity.

The novels of Jules Verne or Isaac Asimov, Hollywood productions such as Blade Runner, Terminator or I-Robot, are fictions and predict some of the effects that technology produces in human beings and human nature. The fact is that the effects, opportunities and challenges that I.T. and digital (r)evolution produces in human nature have been a major topic in several fields of knowledge and it has been widely analysed, (and demonised) through centuries and millennia of history. It is not necessary to mention the role that the three monotheistic confessions of the book have been playing in evolution and innovation, change and rupture.

1 Professor Constitutional Law University of Copenhagen (Denmark); Prof. Abat has taught Comparative Constitutional Law and legal theory at the State University of New York, the Lincoln Law School of San José, ESADE and Georgetown (CTL). Prof. Abat has been Visiting Scholar at Stanford University Law School; LUISS Rome and the University of Barcelona (faculty of Philosophy). Prof. Abat's research interests are focus on the theoretical foundations of constitutionalism, legal philosophy and comparative constitutional law.

In memory of my friend, Professor Manuel Ballbé Mallol, I hope that where you are, a smile is forming on your face, for this will mean that we are doing things right and taking care of the underprivileged.

The word technology is composed by technē (τεχνή) and logos (λογία) and it can be defined as the set of knowledge, practices, and procedural techniques, to manufacture objects, devices and systems or modify the human environment to meet their needs. The *technē* as technique covers the ways that humans have been created to adapt the environment to his needs. Due to this fact, the philosophical reflections on technique and its logos are as ancient as philosophy.² However, theoretical research within technology has often come to be indistinguishable from theoretical research in science, making engineering science largely continuous with ‘ordinary’ or ‘pure’ science. This is a relatively recent development, which started around the middle of the nineteenth century, and is responsible for great differences between modern technology and traditional, craft-like techniques.³

According to this broad definition of technology, everything has technology and we, as human beings, have always been related to it. We are living in a world where technology reaches into every aspect of our lives where the technological devices are with us from the minute we wake up until the moment we fall asleep. However, it has always been so. Technology has always been employed by humans onto the environment. Certainly, nowadays the influence and effects of technology are more evident and absolute, a sentence that each generation of humans have been stating since time immemorial and that technological evolution has progressively contradicted.

The current I.T. and digital tyranny and pan-effect reopen again similar ethical and moral questions that ancient technological progress posed. It is sort of Nietzsche’s eternal return. Luckily, there is not a Spanish Inquisition burning witches and heretics who dare to say that the earth is round after using a devil’s device, but we do have global companies, states, banks, the I.M.F and others somehow reinventing the role of the Tribunal of the Holy office.

The approach and analysis of the phenomenon of technology that this paper takes, was well established by Martin Heidegger’s reference to technology as a kind of cognition and theoretical conduct.⁴ Heidegger pointed out that the essence and the dominance of technology consist in a process of objectification of nature, which is arranged by the

2 Fransen, Maarten, Lokhorst, Gert-Jan and van de Poel, Ibo, ‘Philosophy of Technology’, *The Stanford Encyclopedia of Philosophy* (Fall 2018 Edition), Edward N. Zalta (ed.), online: <https://plato.stanford.edu/archives/fall2018/entries/technology/>

3 Ibid.

4 Heidegger, Martin, Gesamtausgabe, Vol.77, Feldweg-Gespräche (1944/45), Ingrid Schübler (ed.), *Vitorio Klostermann*, 1995.

human to make it liable to him.⁵ In this sense, it is not casual that economic elites are escaping from the digital world. Current digitalisation is focusing on the lower social class. In the upper social class, even in Silicon Valley, time on screens is increasingly seen as unhealthy.⁶ As more screens appear in the lives of the poor, screens are disappearing from the lives of the rich. The richer you are, the more you spend your time offscreen.⁷

Technê and Epistêmê

The etymologic composition and the eidetic relation of both components of the word technology (*tecnos* and *logos*) has been changing and evolving in the course of history. Since its origins, *technê* was associated with other virtues and concepts, such as *episteme* (knowledge). The first section of the paper focuses on the relation between *technê* and *episteme* for topical reasons and because of the transcendence that this conceptual association/dissociation had in the antiquity and in contemporary authors, such as Heidegger, Arendt, Adorno or Marcuse.

The terms “technical” and “technological” has been used as synonyms, this equivalence and inaccurate practice may have its origins in the ancient ambivalence and multiple relationships that *technê* (as technique) had with other concepts. Despite that, the technique could be understood as a procedure to modify reality, based on the information provided by sciences; on the other hand, technology is a set of knowledge about technical procedures.⁸ As Aristotle poses it in the opening paragraphs of the *Nicomachean Ethics*, there are ends apart from the actions and that it is the nature of the products to do better than the activities.⁹

Plato defined the concept of *technê* as a virtue related to the ruling, and the creation of the cosmos. As the concept of *technê* develops, the role of reflective knowledge (*epistêmê*) is emphasized. Plato uses *technê* and *epistêmê* alternatively, or as Nussbaum poses it, there is no clear and systemic difference between both concepts.¹⁰

Despite Plato, Aristotle analyses more consciously the concept of *technê* when he distinguishes between the five virtues of thought: *technê*, *epistêmê*, *phronêsis*, *sophia*,

5 Ibid.

6 Bowies, Nellie, 'Human Contact Is Now a Luxury Good', *The New York Times*, 23.4.2019, at: <https://www.nytimes.com/2019/03/23/sunday-review/human-contact-luxury-screens.html>

7 Ibid.

8 Fullat, Octavi, *Filosofía de la educación, Síntesis*, 2000, p.164.

9 Aristotle, *Nicomachean Ethics*, Batoche Books (trans. W.D. Ross), 1999, p.3.

10 Nussbaum, Martha, *The Therapie of Desire*, Princeton University Press, 1994.

and *nous*.¹¹ In his distinction, the last form of knowledge appears to be a rational kind, specifically linked to humans and our rational capacity.¹² Dealing concretely with the distinction of the two first virtues of thought, *technê* is distinct from *episteme* in the strict sense. The former is confined to the world of contingencies; the domain of the latter is what is necessary.¹³

Aristotle considers that *technê* (craft, art, capacity) is artificial, not a natural activity; the technique is the *know-how* to do things according to an *eidos* (idea) that the *technetites* (artisan, artist) knows and reproduces in reality.¹⁴ The way that Stoic's notion of *technê* works is illustrated in another widely held Stoic teaching, i.e., the unity of the virtues.¹⁵

This traditional concept of *technê* was used under the progressive transformation of our societies and individuals throughout the process of modernisation.

Technology and Modernity

As Max Weber pointed out and Parsons later developed, throughout the process of modernization, or the transition from a traditional to a modern society, a new kind of logic and a technical-scientific rationality rules.¹⁶ The process of rationalisation was gradually introduced and affected the society in an intangible way; first, it affected social actions and relations, and lately the individual ones. Weber defines the spirit of capitalism as a mentality or attitude that aims systemically and professionally at achieving to the rational legitimate profit.¹⁷

This "Geist" (spirit) is a psychic disposition of the individual manifested in its behaviour standards. This new economic mentality was made against the dominant traditionalism to rule of the acts of the lifeworld (*Lebenswelt*).¹⁸ The appearance of modern science, and its instrumental essence within the capitalist system, caused the evolution and

11 Parry, Richard, 'Episteme and Techne', *The Stanford Encyclopedia of Philosophy* (Summer 2020 Edition), Edward N. Zalta (ed.), forthcoming, available at: <https://plato.stanford.edu/archives/sum2020/entries/episteme-techne/>

12 Aristotle, *Metafisics*, *Penguin Classics*, 1998 and Aristotle, *Physics*, *Penguin Classics*, 1998.

13 Parry, 2020

14 Fullat, op.cit. p.164.

15 Ibid.

16 Weber, Max, *Die protestantische Ethik und der „Geist“ des Kapitalismus*, *Archiv für Sozialwissenschaft und Sozialpolitik*, (1st ed. 1904), *Springer Verlag*, 2019.

17 Ibid in p. 74

18 Ibid in p. 18.

progressive replacement of the traditional concept of *technê* by the new concepts of technique and technology.

Heidegger analyses the link between Greek *technê* and modern technology when he explores the relating of being and man taking place within it.¹⁹ Heidegger offered a prescient critique of modern technology. The two most salient philosophical terms in Heidegger's account of technology are enframing (*Gestell*) and releasement (*Gelassenheit*).²⁰ Enframing is Heidegger's term for the essence of modern technology, the human orientation towards making everything, including ourselves, part of a system ready to be called on at a moment's notice in the service of technology.²¹ The antidote to this condition is releasement (*Gelassenheit*), a mode of being that is open to the world and which forestalls the imposition of a dominating will on other things.²²

The modern instrumental technique lies on western man's attitude to manipulate the essence and understanding of nature by imposing a mathematical model. This mathematical process consisted in a sort of "objectivisation" of nature throughout an imposition of mathematical logics to exploit it.²³

Heidegger concludes that the main difference between the ancient concept of *technê* and modern technology lies in the fact that the first did not aim at a practical purpose of production but a contemplative attitude, whereas the second pursues the production of a valuable object.²⁴ As a matter of example, and to simplify the distinction, *technê* was employed to create a vase of the Ming dynasty, looking for a perfect art, whereas modern technology is used in Ikea factories to produce *Återtåg* vases.

Herbert Marcuse defined the characters, types and effects that technological rationalisation causes in human freedom. He exposes how to contest this alienating rationalisation in order to maintain the necessary ideal of freedom. There is no doubt about the political Heided legal implications of Marcuse's predictions, which are very

19 Lovitt, William, 'Techne and Technology, Heidegger's perspective on what is happening today', *Philosophy Today*, 24.1.1980, p.62.

20 Wendland, Aaron James, Merwin, Christopher and Hadjioannou, Christos, 'Introduction' in Aaron James Wendland, Christopher Merwin, Christos Hadjioannou (eds.), *Heidegger on Technology*, *Routledge*, 2018, p. 3.

21 Ibid

22 Ibid

23 Heidegger, Martin, *Country Path conversations*, *Indiana University Press*, 2016.

24 Ibid

timely relevant in the current era of digitalisation; or the last episode of a technological wave that humanity is facing.

In a very sceptical approach to technology, the author of the Second Generation of the *Frankfurter School* focuses on the unavoidable degeneration that society experiences through the rationalisation that technology imposes. A system of social control, domination and totalitarianism emerges as a consequence of technological rationalisation.²⁵

Marcuse believes that a constituted society may be analysed from its social, political and cultural structures, but also it requires a revision of the logic of domination and the social unconscious articulated throughout the repressive de-sublimation in which reality and the subject are reduced to simple tools of production and consumption.²⁶ In terms of methodology, the Hegelian dialectic arises when Marcuse defines the appearance of the *One-dimensional man* because of the domination and rationality imposed by technology in our means of life.²⁷

Marcuse remarks that technological rationalisation thrusts human alienation and a process of de-aesthetics is like a deformation of the senses that makes possible the repression and the manipulation of humankind. Education, no culture (absorbed a-critically by the one-dimension man) is the only mean to struggle against this process of rationalisation.²⁸

What worried Marcuse and other thinkers in the decade of '40s of the last century, i.e. the aerosol spray, the transistor radio, the microwave, the birth of the first electronic computer; concerned, as the last technological progress and devices may worry us. In Marcuse's times, the Nazi regime was alive, the nuclear bomb and the rocket-powered missiles were the last technological innovations; nowadays, drones, satellites, robots and algorithms are used in war and pre-war contests and to annihilate "enemies".

Marcuse uses a simple example to illustrate how technology affects human nature and our cognitive faculties. A man driving a car to a distant place chooses his route from

25 Jay, Martin, *The Dialectical Imagination, a history of the Frankfurter School and the Institute of Social Research, 1923-1950*, University of California Press, 1973, p.78.

26 Ibid in p. 79.

27 Marcuse, Herbert, *One-dimensional Man*, Routledge Classics, 1991.

28 Horkheimer, Max und Adorno, Theodor, *Dialektik der Aufklärung*. Philosophische Fragmente, S. Fischer, 1986.

the highway maps. In this journey, towns, lakes and mountains appear as obstacles and the countryside is shaped and organised by the highway.²⁹ Numerous signs and posters tell the traveller what to do and think; they even request his attention to the beauties of nature or the hallmarks of history. He will fare best by following its directions, subordinating his spontaneity to the anonymous wisdom which ordered everything for him. What Marcuse wants to remark is that “*others have done the thinking for him, and perhaps for the better*”.³⁰ Under the impact of this technological apparatus: individualistic rationality; has been transformed into technological rationality undermining the main source of individual freedom, the critical reason.³¹

An update of this simple example can enlighten us on the different situations that the driver (if it is not a self-driving car) will face along the trip in 2020. A vast majority of drivers, in this kind of journeys or when navigating unfamiliar cities, will employ a GPS (Global Position System) using satellite data to find the better route (according to the preferences of the driver) to reach the destination.

Following the rationale of Marcuse in his example, the use of the GPS or self-driving car increases exponentially the use of the anonymous wisdom and the alienation of individuals. The effects and huge impact of the GPS on our society are evidently affecting our way of communicating and living. GPS is used in nearly every aspect of life in today’s world.³²

These systems have revolutionized today’s technology by becoming more interactive and useful in multiple industries. Some of the most evident effects are positive such as real-time data helping multiple organizations including the entertainment sector, law enforcement, government entities and consumers, locating missing people through signal detection, safety while boating.³³ Essentially, GPS technology is making the happenings of the world detectable, capable of being tracked and more preventable.³⁴

29 Ibid, in p.143.

30 Ibid.

31 Ibid

32 Agrawal, AJ, ‘How GPS Revolutionized Technology Today’, *Huffpost*, 12.5.2017, at: https://www.huffpost.com/entry/how-gps-revolutionized-te_b_9917232?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAB9sqJ9rMAI-1Wgeh7M9HBjH_mDN0YenOd3Yw9mMZTe1QyajJEChr_gTswkuxB1xw5y5BgUlJyijndL-h1VRvChSzcR_n_Agff10Oa0CvPqp9rBfB4J5-NYV852aSN86FZLxjjix2lyr8a08CRgCokX-hLuVnfHN2h6inn4xEfHtL

33 Ibid

34 Ibid.

On the other hand, the GPS technology undermines individual freedom and our critical sense. It has pernicious effects on our cognitive capabilities and it is affecting our perception and judgement. Navigation in urban environments requires complex cognitive abilities. We need to focus on both spatial overview and we have to process information related to details of surroundings and places.³⁵

When people are told which way to turn, it relieves them of the need to create their own routes and remember them. They pay less attention to their surroundings. Neuroscientists can now see brain behaviour changes when people rely on turn-by-turn directions.³⁶ In a study published in *Nature Communications* in 2017,³⁷ researchers asked subjects to navigate a virtual simulation of London's Soho neighbourhood and monitored their brain activity, specifically the hippocampus, which is integral to spatial navigation.³⁸

The hippocampus makes an internal map of the environment and this map becomes active only when you are engaged in navigating and not using GPS.³⁹ The hippocampus allows us to orient in space and know where we are by creating cognitive maps. It also allows us to recall events from the past, what is known as episodic memory. And, remarkably, it is the part of the brain that neuroscientists believe gives us the ability to imagine ourselves in the future.⁴⁰

Those who were guided by directions showed less activity in this part of the brain than participants who navigated without the device. Studies have long shown the hippocampus is highly susceptible to experience. Meanwhile, atrophy in that part of the brain is linked to devastating conditions, including post-traumatic stress disorder and Alzheimer's disease. Stress and depression have been shown to dampen neurogenesis —

35 Farcas, Zsuzsanna, János, Réka and Maoir, Edit, 'Spatial orientation: Effects of GPS usage on Cognitive Map forming'; Conference: 11th AlpsAdria Psychology Conference, Pécs, Hungary, At Pécs, Hungary, Volume: ABSTRACTS Review of Psychology, *International Journal of Psychological Association* 21(1), 51-107. UCD 159.9/ ISSN 1330-6812.

36 O'Conner, M.R., 'Ditch the GPS. It's ruining your brain.', *The Washington Post*, 5.6.2019, at: https://www.washingtonpost.com/opinions/ditch-the-gps-its-ruining-your-brain/2019/06/05/29a3170e-87af-11e9-98c1-e945ae5db8fb_story.html

37 Javadi, A., Emo, B., Howard, L. *et al.*, 'Hippocampal and prefrontal processing of network topology to simulate the future', *Nat Commun* 8, 14652, 2017, available at: <https://doi.org/10.1038/ncomms14652>

38 O'Conner

39 Ibid

40 Ibid.

the growth of new neurons — in the hippocampal circuit.⁴¹ Atrophy that may affect our potential responses to GPS failures, estimated every year in more than 300,000 car accidents in the United Kingdom alone.⁴²

The following point analysed in this paper lies on these cognitive effects that technology is causing in human nature to the point that it is appropriate to talk about a new sort of human evolution the *Homo Digitalis* or, as some authors (Foucault, Judith Butler, Humberto Maturana, Donna Haraway or Stefano Rodotà among others) are claiming, a post-human reality.

The Homo Digitalis or a Post-Human Reality.

Homo Videns

The expansion of the mass media brings some innovations to control these masses. The appearance of television and its great implementation and impact in public and private sphere interrupted the evolution of the human nature, and the *Homo Sapiens* (product of written culture) was substituted by the *Homo Videns* (product of the image). The author claims that television at the time would not only be an instrument, but it is a “*paideia*”, that generates a new “*anthropos*”, a new type of human being, more “credulous and naïve”.⁴³ Sartori’s pessimistic approach is focused on the effects that the television first, and the new technologies have in the capacity of the crowds, of the demos and therefore, in the role that the demos might play in the political system.

Sartori, follows arguing that the main difference between the television and the new technologies (what he defines as the two visible means), is that the first show’s images of real things, it is photography and cinematography of what exists.⁴⁴ On the other hand, the cybernetic computer shows us imaginary images, the so-called virtual reality is an unreality.⁴⁵ It also remarked the tremendous possibilities and risks that the internet implies but his view is pessimistic about the effects (public’s inability of getting itself together, citizens are not interested in learning, they are superficially informed and dependent on the judgments offered by the media) that the television and the

41 Ibid

42 Staver, Jared, ‘Chicago Personal Injury Blog: Have In-Car Navigation Units Increased Accidents?’, *Staver*, at: <https://www.chicagolawyer.com/have-in-car-navigation-units-increased-accidents/>

43 Sartori, Giovanni, *Home Videns, Televisione e post-pensiero*, *Laterza*, 2000.

44 Ibid in p.34.

45 Ibid.

cybernetic computer produce to the mass and the democracy. In this sense, technology remarks the Platonic criticism to democratic citizens, a mass of ignorant ruling and taking their decisions based on opinion (Doxa) and not knowledge (episteme). TV plays the role of the white wall of the Platonic cavern.

The definition of the post-human field no longer refers only to innovations linked to biology and genetics, but is the result of the convergence of various disciplines and experiences, ranging from electronics to artificial intelligence, robotics, nanotechnologies and neurosciences.⁴⁶ Many transformations are already visible and justify the consideration of the body as “a new connected object”, even presented as a “nano-bio-info-neuromachine”, recalling that *homme machine* that La Mettrie and D’Holbach spoke of in the century.⁴⁷

The result of this process of transformations end in an update of the *homo humanus* and not in a post-human condition where the time to come is described as the one of our final invention, the artificial intelligence and the end of the human age.⁴⁸ Even that we acknowledge that the construction of the identity increasingly lies in algorithms, subtracting it from individual decision and knowledge.⁴⁹ This reality is related with Marcuse’s position on machines making decisions instead of humans. However, a central point of the paper is that the *Homo Digitalis* still is a human being and not a post-human reality. Therefore, the *Homo Sapiens Digitalis* is subject of human rights and obligations.

Homo Digitalis

The digital era has transformed the *Homo Videns* into a new sort of human, the *Homo Digitalis*, a Sapiens surrounded and dependent on I.T. devices; Smartphones, desktops, e-Books, tablets, GPS, universal serial bus (USB) and computers are not simply accessories but necessary elements of our lives.

The *Homo Digitalis* lives permanently connected to an imaginary network. The internet age has incited new social movements characterised to be more horizontal and deliberative and including virality (as the tendency to circulate rapidly and widely from

46 Rodotà, Stefano, ‘Del ser humano al posthumano’ in De la Quadra Salcedo, Tomás, Piñar Mañas, José Luis, et al, Sociedad Digital y Derecho, *Boletín Oficial del Estado*, 2018, p.87.

47 Ibid in p.88

48 Barrat, J., *Our Final Invention: Artificial Intelligence and the End of the Human Era*; Dunne Books, 2013.

49 Rodotà, op. cit, p.90.

one internet user to another) as one of their main elements.⁵⁰ All these changes also have effects in our Psyche to an extent that some authors define the current humans as *Homo Digitalis*.⁵¹

From a social perspective, the online crowd is encompassing the social internet networks, as spaces of autonomy, largely beyond the control of governments, corporations and Big Tech that had monopolised the channels of communications as the foundation of their power, throughout history.⁵² In the safety of cyberspace, people from all ages and conditions moved toward occupying urban space, on a blind date with each other in a display of self-awareness that has always characterised major social movements.⁵³

By constructing a free community in a symbolic place, social movements create a public space, a space for deliberation, which ultimately becomes a political space, a space for sovereign assemblies to meet and to recover their rights of representation, which have been captured in political institutions predominantly tailored for the convenience of the dominant interests and values.⁵⁴

Crowds are now at the heart of digital networks as evidenced by the multiplicity of their appearances and aspects, such as the flash mobs that describe express gatherings of individuals connected by mobile terminals, the smart crowds designate all the users connected to the capacities increased by the networking on the Internet and Crowdsourcing.⁵⁵ Citizens are concerned about political matters and want to defend their interest, influence the behaviour of authorities, look for like-minded others, or simply express their opinion in a public manner.⁵⁶

Continuous electronic messages, tweets, notifications on Facebook, forces the new man to remain in a state of permanent alert, a state of over excitation that lends itself

-
- 50 Gill Moreno, Elena, 'Nuevos abismos sociales en la era digital: de las masas al crowd', *Política y Sociedad*, 2015, 192.
- 51 Montag, Christian, *Vom Homo Sapiens zum Homo Digitalis*, Springer, 2017. See also Cuartas Arias, Jorge Mauricio, 'Homo Digitalis and Contemporary Psychology', *International Journal of Psychological Research* 12(2), 2019.
- 52 Castells, Manuel, *Network of Outrage and hope, social movements in the internet age*, Polity Press, 2013, p.3.
- 53 Ibid in p.3.
- 54 Ibid in p.11.
- 55 Ibid.
- 56 Theocharis, Yannis and Van Deth, Jan W., *Political Participation in a Changing World. Conceptual and Empirical Challenges in the study of Citizen Engagement*, Routledge, 2018, p. 19.

to developing addictive behaviours and obsessive-compulsive disorders. Sufficient as an example are people who cannot attend a movie session, a play, a concert, or even a religious service, without consulting their mobile phone.⁵⁷ The *Homo Digitalis* comprises both a new form of collective coherence, which allows different voices to be represented across borders but also an adverse effect on the psyche particularly because of the all-encompassing role of the Internet of Things.

The massive amount of works in different fields defining and analysing this so-called “*Homo Digitalis*” evidence this last evolutionary stage of humans. In this sense, it is as Pérez Tapias defines this new Sapiens who is an up-dated version of Cicero’s *Homo Humanus* and an illusory *Homo Deus*.⁵⁸

Now, as jurists and lawyers, we need to think how to protect the *Homo Digitalis* that as a *Nasciturus* or new-born child needs to be legally protected in the face of the dangers and threats that its new environment causes.

Protecting the Homo Digitalis, protecting us.

I.T. and digitalisation imply new opportunities, risks and threats to our understanding of freedom of speech, right to dignity, privacy, etc. As other emergent or “new” social fields that need to be juridified, the digital era as a universal phenomenon requires a universal answer conducted by a strong regulatory effort and a strict application of the regulatory principles. It should rely on basic principles such as equality, transparency, data protection, proportionality, right of information, legal certainty and security. In terms of data protection of the Homo Digitalis, Moerel and Corien Prins of the University of Tilburg University, proposed an impressive framework of regulation.⁵⁹ Andrés Boix Palop also remarks the need to consider algorithmic models used by the Public Administrations for the effective adoption of decisions as administrative regulations from a legal point of view, because they fulfil a function which is strictly

57 Bachiller, Rafael, ‘Homo Digitalis’, *El Mundo*, 22.4.2015, at: <https://www.elmundo.es/opinion/2015/04/22/5537d316e2704ef0498b4570.html>

58 Pérez Tapias, José Antonio, *Ser Humano: Cuestión de dignidad en todas las culturas*, Trotta, 2019.

59 Moerel, Lokke and Prins, Corien, ‘Privacy for the homo digitalis. Proposal for a new regulatory framework for data protection in the light of Big data and the Internet of Things’, 2016, Available at SSRN: <https://ssrn.com/abstract=2784123>

equivalent to that of legal norms, i.e. to regulate and predetermine the action of the public powers.⁶⁰

We have seen very recently, that domestic and international courts are starting to implement these principles to digitalisation. As a matter of example, the Hague District Court (The Netherlands) delivered a Judgment in February 2020, ruling that a system (SyRI) established by the Dutch government to assess the level of risk of fraud of citizens, does not meet the requirements of proportionality, lacks transparency and violates the provisions on respect for private life recognized by the Article 8 of the European Convention on Human Rights.⁶¹

The court assessed whether the SyRI legislation complies with Article 8 paragraph 2 ECHR. This particular provision requires striking a fair balance between the interests of the community as a whole, which the legislation serves, and the right of the individuals affected by the legislation to respect for their private life and home.⁶²

There are already court decisions in Europe in which an algorithmic model evaluating the personal characteristics of citizens is declared illegal. The principle of transparency is the guiding principle of data protection that underlies and is enshrined in the ECHR. In this sense, the District court of The Hague considers that the Dutch government has not disclosed the type of algorithms used in the risk model, nor provided information on the risk analysis method used, with the excuse of preventing citizens from being able to adjust their behaviour accordingly.⁶³

Besides, it appreciates that the regulatory regulations of algorithms do not provide any obligation of information to the people whose data is processed so that it cannot reasonably be expected that those people know that their data is used or has been used for that purpose. Additionally, these regulations also do not provide any obligation

60 Boix Palop, Andrés, 'Los algoritmos son reglamentos: la necesidad de extender las garantías propias de las normas reglamentarias a los programas empleados por la administración para la adopción de decisiones', *Teoría y Método, revista de derecho público* 1, 2020.

61 Kluwer, Wolters, 'Primera sentencia europea que declara ilegal un algoritmo de evaluación de características personales de los ciudadanos', *Diariolaley*, 3.2.2020, at: <https://diariolaley.laleynext.es/Content/Documento.aspx?params=H4sIAAAAAEAMtMSbH1czUwMDAyN-Da3NDJUK0stKs7Mz7M1MjACC6rI5aekhrG425bmpaSmZealpoCUZKZVuuQnh1QWpNqm-JeYUp6qJJuXnZ6OYFA8zAQCFsdrYwAAAA==WKE>

62 Court Decision C-09-550982-HA ZA 18-388, available in English at: <https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2020:1878>

63 European Commission, COM (2020) 65 Final, The WHITE PAPER On Artificial Intelligence - A European approach to excellence and trust https://ec.europa.eu/info/sites/info/files/comp_mission-white-paper-artificial-intelligence-feb2020_en.pdf

to inform interested parties individually, when appropriate, of the fact that their risk assessment has been positive.

In the court's opinion, the principle of transparency has not been sufficiently observed in the SyRI legislation in light of Article 8 (2) of the ECHR. The court finds that the SyRI legislation in no way provides information about the factual data that may justify the presence of a particular circumstance, or what objective data may justify the conclusion that there is an increased risk. In the documentation provided, it is added, only some examples of indicators that may indicate a greater risk and a possible impact are given.

On 19 February 2020, the European Commission launched a Consultation on Artificial Intelligence. Citizens and stakeholders are invited to provide their feedback by 14 June 2020. The objective of this document was to prepare a set of proposals to establish a European regulatory framework for artificial intelligence. The document aims to promote the development of this technology in Europe while ensuring respect for the values and principles of the Union.

The White paper on Artificial Intelligence - An European approach to excellence and trust is structured in six sections: Introduction; Current regulatory framework; Policies to support and adopt artificial intelligence; Facilitate access to data; Regulatory Framework for AI and Conclusion. It pays special attention to seizing opportunities and risks for safety and effective functioning of the liability regime.⁶⁴

Certainly, these are important steps forward to provide a safe framework to protect the *Homo Digitalis* from the risks that digitalisation implies. However, a universal effort is needed while emphasising effective measures and not merely declaratory statements. Otherwise, our safety, human rights and even our human nature are going to be at risk.

Conclusion

Would Marcuse have a Facebook account and use I.T. devices? Definitely. And, probably not only because of the same reason that Aristotle and Plato will probably state that we are political animals, *Zoon Politikon*. A month of confinement because of Covid-19 has evidenced this fact again but also that online crowds are not enough to fulfil our social needs. However, if in this century, we need online networks to interact,

64 Ibid.

Plato, Aristotle and Marcuse would probably have an online social media account and username.

For better or worse, there is no way to escape from digitalisation. Therefore, the relevant question is not whether we accept A.I and digitalisation but to be aware of the potential threats that this technology may imply. As Pérez Tapias brilliantly remarks, the protection of the Homo Digitalis is a question of dignity,⁶⁵ but also it is necessary to enhance universal legal and political effective responses to ensure the tremendous benefits of the digital era. Even that it is a paradoxical to use law, which implies always an extreme degree of rationalisation, to protect the new *Homo Sapiens Digitalis* from the rationalisation and alienation that digitalisation imposes.

Bibliography

Aristotle, *Metaphysics*, *Penguin Classics*, 1998.

Aristotle, *Nicomachean Ethics*, *Batoche Books* (trans. W.D. Ross), 1999.

Aristotle, *Physics*, *Penguin Classics*, 1998.

Barrat, J, *Our Final Invention: Artificial Intelligence and the End of the Human Era*; *Dunne Books*, 2013.

Boix Palop, Andrés, 'Los algoritmos son reglamentos: la necesidad de extender las garantías propias de las normas reglamentarias a los programas empleados por la administración para la adopción de decisiones', *Teoría y Método, revista de derecho público* 1, 2020.

Castells, Manuel, *Network of Outrage and hope, social movements in the internet age*, *Polity Press* 2013.

Cuartas Arias, Jorge Mauricio, 'Homo Digitalis and Contemporary Psychology', *International Journal of Psychological Research* 12(2), 2019.

Farcas, Zsuzsanna, János, Réka and Maoir, Edit, 'Spatial orientation: Effects of GPS usage on Cognitive Map forming'; Conference: 11th AlpsAdria Psychology Conference,

65 Pérez Tapias, José Antonio, op.cit.

Pécs, Hungary, At Pécs, Hungary, Volume: ABSTRACTS Review of Psychology, *International Journal of Psychological Association* 21(1), 51-107. UCD 159.9/ ISSN 1330-6812.

Fullat, Octavi, *Filosofía de la educación, Síntesis*, 2000.

Franssen, Maarten, Lokhorst, Gert-Jan and van de Poel, Ibo, 'Philosophy of Technology', *The Stanford Encyclopedia of Philosophy* (Fall 2018 Edition), Edward N. Zalta (ed.), online: <https://plato.stanford.edu/archives/fall2018/entries/technology/>

Gil Moreno, Elena, 'Nuevos abismos sociales en la era digital: de las masas al crowd', *Política y Sociedad*, 2015.

Heidegger, Martin, Gesamtausgabe, Vol.77, *Feldweg-Gespräche (1944/45)*, Ingrid Schübler (ed.), *Vitorio Klostermann*, 1995.

Heidegger, Martin, *Country Path conversations*, *Indiana University Press*, 2016.

Horkheimer, Max und Adorno, Theodor, *Dialektik der Aufklärung. Philosophische Fragmente*, S. Fischer, 1986.

Javadi, A., Emo, B., Howard, L. *et al.*, 'Hippocampal and prefrontal processing of network topology to simulate the future', *Nat Commun* 8, 14652, 2017, available at: <https://doi.org/10.1038/ncomms14652>

Jay, Martin, *The Dialectical Imagination, a history of the Frankfurter School and the Institute of Social Research, 1923-1950*, *University of California Press*, Berkeley, 1973.

Lovitt, William, 'Techne and Technology, Heidegger's perspective on what is happening today', *Philosophy Today*, 24.1, 1980.

Marcuse, Herbert 'Some implications of modern technology', *Studies in Philosophy and Social Sciences* IX, 1941.

Marcuse, Herbert, *One-dimensional Man*, *Routledge Classics*, 1991.

Moerel, Lokke and Prins, Corien, 'Privacy for the homo digitalis. Proposal for a new regulatory framework for data protection in the light of Big data and the Internet of

Things', 2016, Available at SSRN: <https://ssrn.com/abstract=2784123> or <http://dx.doi.org/10.2139/ssrn.2784123>

Montag, Christian, *Vom Homo Sapiens zum Homo Digitalis*, Springer, 2017.

Nussbaum, Martha, *The Therapy of Desire*, Princeton University Press, 1994.

Parry, Richard, 'Episteme and Techne', *The Stanford Encyclopedia of Philosophy* (Summer 2020 Edition), Edward N. Zalta (ed.), forthcoming, online: <https://plato.stanford.edu/archives/sum2020/entries/episteme-techne/>

Pérez Tapías, José Antonio, *Ser Humano: Cuestión de dignidad en todas las culturas*, Trotta, 2019.

Rodotà, Stefano, 'Del ser humano al posthumano' in De la Quadra Salcedo, Tomás, Piñar Mañas, José Luis, et al, *Sociedad Digital y Derecho*, Boletín Oficial del Estado, 2018.

Sartori, Giovanni, *Home Videns, Televisione e post-pensiero*, Laterza, 2000.

Theocarlis Yannis and Jan W. Van Deth, *Political Participation in a Changing World. Conceptual and Empirical Challenges in the study of Citizen Engagement*, Routledge, 2018.

Weber, Max, *Die protestantische Ethik und der „Geist“ des Kapitalismus*, Archiv für Sozialwissenschaft und Sozialpolitik, (1st ed. 1904), Springer Verlag, 2019.

Wendland, Aaron James, Merwin, Christopher and Hadjioannou, Christos, 'Introduction' in Aaron James Wendland, Christopher Merwin, Christos Hadjioannou (eds.), *Heidegger on Technology*, Routledge, 2018, p. 3.

Legal Documents:

Court Decision C-09-550982-HA ZA 18-388, available in English at: <https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2020:1878>

Websites:

Agrawal, AJ, 'How GPS Revolutionized Technology Today', *Huffpost*, 12.5.2017, at: <https://www.huffpost.com/entry/>

how-gps-revolutionized-te_b_9917232?guccounter=1&guce_
referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_
sig=AQAAAB9sqJ9rMAI1Wgeh7M9HBjH_mDN0YenOd3Yw9mMZTe1QyajJEChr_
gTswkuxB1xw5y5BgUIjyjndLh1VRvChSzcR_n_Agff10Oa0CvPqp9rBfB4J5-NYV852
aSN86FZLxjjix2Iyr8a08CRgCokXhALuVnfHN2h6inn4xEfHtL

Bachiller, Rafael, 'Homo Digitalis', *El Mundo*, 22.4.2015, at: <https://www.elmundo.es/opinion/2015/04/22/5537d316e2704ef0498b4570.html>

Bowies, Nellie, 'Human Contact Is Now a Luxury Good', *The New York Times*, 23.4.2019, at: <https://www.nytimes.com/2019/03/23/sunday-review/human-contact-luxury-screens.html>

European Commission, COM (2020) 65 Final, The WHITE PAPER On Artificial Intelligence - A European approach to excellence and trust https://ec.europa.eu/info/sites/info/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf

Frischen, Konstanze, 'Respirators From 3D Printers: How The Spanish Maker Community Fights Covid-19 From Their Living Rooms', *Forbes*, 23.4.2020, at: <https://www.forbes.com/sites/ashoka/2020/03/23/respirators-from-3d-printers-how-the-spanish-maker-community-fights-covid-19-from-their-living-rooms/#1a7cb06157ce>

Kluwer, Wolters, 'Primera sentencia europea que declara ilegal un algoritmo de evaluación de características personales de los ciudadanos', *Diariolaley*, 3.2.2020, at: <https://diariolaley.laleynext.es/Content/Documento.aspx?params=H4sIAAAAAAAAAEAMtMS-bH1czUwMDAyNDa3NDJUK0stKs7Mz7M1MjACC6rl5aekhr425bmpaSmZeal-poCUZKZVuuQnh1QWpNqmJeYUp6qJJuXnZ6OYFA8zAQCFsdkrYwAAAA=WKE>

O'Conner, M.R., 'Ditch the GPS. It's ruining your brain.', *The Washington Post*, 5.6.2019, at: https://www.washingtonpost.com/opinions/ditch-the-gps-its-ruining-your-brain/2019/06/05/29a3170e-87af-11e9-98c1-e945ae5db8fb_story.html

Staver, Jared, 'Chicago Personal Injury Blog: Have In-Car Navigation Units Increased Accidents?', *Staver*, at: <https://www.chicagolawyer.com/have-in-car-navigation-units-increased-accidents/>