Reflections on the ‘Right to Justice’: Now and in the Future

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Abstract There is only one justice, but it may be and it should be analyzed in various ways and, for classification purposes, divided and named in numerous ways. The United Nations finds itself at the juncture of two concepts of justice: natural (heavenly/divine) and that created in cyberspace, recently through artificial intelligence. The right to justice sets the foundations for the entire system of human rights in the world. These rights have been and are being developed by the United Nations, most recently via the implementation of the 2030 United Nations Sustainable Development Agenda. Justice fulfils and will increasingly play the role of a regulator of social development as the best fit for this function among the fundamental values of the human civilization—the love, the good, the beauty, the truth and the justice. Owing to the United Nations position on the crossroads, the Organization may be ecumenical in its own terms. Yet sooner or later it will have to measure up to effects of human development geared towards artificial intelligence and cyberspaces (as there are more than one), which may result in the emergence of Homo deus. The eventual effect of such an approach may be the building of a global civilization with succeeding generations of “hereditary intelligence” driven by artificial intelligence. Understanding the importance of the creation (or sub-creation) of artificial intelligence and cyberspaces by humanity gives it “legitimacy” to shape these based on commensurate values (criteria): love, good, beauty, truth, and justice, as if they were ‘divine’. Three conclusions follow. First, paraphrasing the famous “If you want peace, prepare for war” we have to “... aim for e-respect.” Second, as there is science related to law, it may be opportune to pursue research and develop separate science related to this form of delivering justice, which I would call “justology.” Third, the post-2030 UN Agenda for sustainable development, with the horizon reaching mid twenty-first century, must face the threats associated with the development of artificial intelligence and cyberspace, considering the emerging opportunities for humanity.
Keywords Hereditary intelligence · Right to justice · Individual self-awareness · Self-consciousness · Human rights · Robot rights · Divine values · Love · Good · Beauty · Truth · Justice · Divine intervention · Divine criminology · Homo deus · Justology · Justological justice · Justological civilization · United Nations · Sustainable Development Goals

1 Introduction

With the 1948 Universal Declaration of Human Rights (A/RES/217 III), the United Nations set the first milestone in the development of human civilization. These rights change, the new ones are added, and they receive the new meaning. They are not in themselves or for themselves. They serve the highest, superior civilization and cultural values of love, good, beauty, truth and justice. Especially the latter, which seems to be the exponent of the first four and the regulator of civilization and cultural development. These values may be regarded as first-level axioms, and their servants, their stabilization, while the United Nations human rights are second-level axioms.

The directions of this civilization and cultural development of humanity are determined by the goals set out in the UN Sustainable Development Agenda until 2030 (A/RES/70/1). Obviously, this time horizon cannot be final. Subsequent initiatives, probably under the auspices of the UN, will create space and foundations for next stages of development. They will involve new technologies discovered and created by man and more and more advanced products of people’s intelligence. The United Nations human rights and the 2030 UN Agenda form an ordered system that determines whether humanity will survive and will not rest on the way to knowing and understanding its existence and its condition.

Civilization development, although natural, is not cast in stone. Humanity also experienced periods of recourse. People are aware that progress raises new needs and presents them with new challenges. So, they treat development as an obvious answer to these needs and challenges. What’s more, they plan its directions and goals to what extent they can at its subsequent stages of civilization development. The greatest achievement of recent times in the development of humanity is the common understanding that it must be balanced so that it does not lead to self-destruction due to depletion of energy sources, destruction of the natural environment, provoking destructive irreversible climate change, pandemic diseases and other destructive phenomena, including those of a social nature, xenophobia, extreme social inequalities, increased crime, etc.

The 2030 Agenda, which exactly fits the above understanding of progress, does not explicitly mention the threats associated with the development of artificial intelligence and cyberspace. However, it is obvious that the critical areas of civilization development outlined therein are seen because they must be more and more intertwined and interpenetrating. This takes place through the prism of human functioning in an increasingly complex environment of dual reality, both real and virtual (after all, ‘virtual’ means both real and alleged). The post-2030 UN Agenda
for sustainable development, with the horizon reaching mid twenty-first century, must face the threats associated with the development of artificial intelligence and cyberspace, considering the emerging opportunities for humanity.

The role and importance of the UN in this context cannot be overestimated. After all, it is the only global organization capable of carrying out coordinated actions that can stop bad and support positive trends. Given the global reach of cyberspace (with some exceptions) and the present self-development of artificial intelligence, only the coordinated action of all human civilization stands a chance of succeeding, not confronting the problems and challenges outlined above.

2 Human Rights

Human rights are classified according to various criteria and there are at least several dozens of these rights. Until now they have not included the most important one—the “right to justice,” in material not procedural meaning of its proper name. After all, the law does not exist separately from justice but it serves the enforcement of justice. This may be striking for academics but not for the practitioners of the United Nations law. However, the Commentary on the United Nations Charter explains that “justice . . . means something different from international law ( . . . ) and ( . . . ) refers to natural law” (Simma et al. 2002, I, p. 36).

Justice is a value which is superior to law, and law should lead to ensuring that justice is respected and served. In the light of the above and from the perspective of the provisions of the 1948 Universal Declaration of Human Rights (A/RES/217A III), it should be noted that the “right to justice” derives from the entire content of this historic declaration. It lies the foundation for the entire human rights system, rather discovered than established by subsequent legal acts of international and domestic different jurisdictions. These rights have been and are being developed in the United Nations. Currently, their development is moving in the direction of the 2030 UN Agenda for Sustainable Development, which is a continuation and evolution of the 2000 Millennium Declaration (A/RES/55/2).

Human rights play three basic functions: first, to protect individual’s freedom against its infringement of the state; second, to ensure that the state creates the possibility for the individual to execute his or her rights; and third, to protect individual’s rights and liberties by the state against their infringement from other persons (Osiatyński 2009). The implementation of these three functions, each of them separately and all of them together, may serve human safety. It is worth noticing that in each of these three functions rights and liberties should co-exist, with underlining that they are two different perspectives of looking at the same problem, two sides of the same medal. Safety may be, and is, one of the aims of these functions together with respect, dignity and justice, the latter superior to them all.

Contemporarily we are witnessing the development of ideas related to freedom—libertarian ones. In this movement, freedom is a superior value and human rights are, by assumption, supposed to serve achieving freedom by individuals, which should
translate into freedom at a social scale (Nozick 1974). To go deeper, we are witnessing the rivalry of two main perspectives related to human rights—one focused on freedom, the other on equality (Steiner 1981). The freedom approach is characteristic to libertarian perspective. In this movement, freedom is a superior value and human rights are, by assumption, supposed to serve the purpose of maximizing the freedom of individuals. On the other side—as it is often presented—resides egalitarian perspective with its claim of the uppermost role of the principles of equality (Rawls 1971).

Moreover, the contemporarily formulated human rights are often considered as liberties in their positive (“a freedom to”) and negative (“a freedom from”) emanations (Berlin 1969), accompanied by corresponding duties they impose, both perfect and imperfect (Kant 1785). How to solve the problem of conflicting rights and incompatible duties is the subject of great moral and legal debate. A debate that might very soon—and in my opinion it will—have to face the challenge of further subjects and their new rights resulting from evolution of societies and technological progress.

From my prospective, it is the perfect moment that those disputing approaches should be crowned with the ‘right to justice’ as superior to other human rights and any other set of rights. Furthermore, the ‘right to justice’ should constitute a reference point for carrying out the exegesis of human rights and adding new rights to the list, fulfilling the twenty-four century old claim that: “Justice sums up all virtues in itself . . . Justice, then, in this sense of the word, is not a part of virtue, but the whole of it; and the injustice which is opposed to it is not a part of vice, but the whole of it” (Aristotle 2004, p. 99).

3 Supremacy of Justice

To avoid chaos and the degradation of moral values, societies must perform a reassessment which should lead to recognition of the supremacy of justice over freedom and equality. This, in turn, should positively affect human safety revealing the true image of justice and thus providing the means to resolve conflicts of positive and negative freedom as well as perfect and imperfect obligations they impose. The point is to ensure that the true image of justice and its nature would be revealed, incorporating the universal law principle to “act in such a way as to treat humanity, whether in your own person or in that of anyone else, always as an end and never merely as a means” (Kant 1785, p. 29).

In my view, people should keep persistently searching for justice, as they have been doing, but, without doubt, much more systematically. This search should be carried out in a scientific way, within the scope of a new science of justice. Analogically, as there is science related to law, it is necessary to create separate science related to justice. Reaching the essence of justice in a scientific way and disseminating this essence among people by means of measures typical for the information society may outweigh the trends of falsely understood unlimited
freedom and absolute equality and serve as a guideline for solving the conflicts of rights. It may effectively prevent people from undertaking actions which put at risk their own safety and the safety of others. It will not eliminate these actions, but it may significantly limit them.

Justice fulfils and will increasingly play the role of a regulator of social development as the best fit for this function among the fundamental values of the human civilization—the love, the good, the beauty, the truth and the justice. They may be “divine” and axiologically they are probably “divine” for all people, even atheists and anti-theists, although for the latter not literally.

4 Challenges and Threats

All of the above should, however, be seen from the perspective of the fourth industrial revolution. The constantly accelerating, rapid development of civilization in the last quarter of a century forces us to deepened reflection on its rudiments, including its directions, goals and methods of regulation. Moreover, this entire development process should be imbued with respect for human rights and concern for human security. It is not accident that the notions presented in abovementioned UN declarations and agendas emerged at the same time as the universal call to action to protect the planet and improve the lives and prospects of everyone, everywhere.

Human civilization is accelerating in its development to an outstanding pace which was impossible to imagine for people from a few decades back, not to mention ages. It is argued that human species stands on the threshold of a new kind of existence, completely different from ours (Huxley 1957). It is estimated that the whole knowledge of humanity, understood as the amount of information gathered, up until 1900 has doubled approximately every century, then by 1945 it was doubling every 25 years, and around mid-1980s it did so every year (Buckminster Fuller 1981). Enormous and constantly increasing acceleration refers to all fields of science, including scientific studies on justice conducted independently in various fields of science.

One of the greatest challenges currently faced by humanity is the formation and the development of intelligence other than biological (human intelligence)—namely, the one which is quite unfortunately referred to as “artificial intelligence” (AI). Because what is this artificial intelligence from the point of view of contemporary creationist theories, in which humans have got their Creator and did not evolve from inanimate matter to lower-order beings (animals which do not poses highly developed intelligence and self-awareness) and then further to a highly intelligent and self-aware homo sapiens? From the creationist perspective, humans are “specific artificial intelligence” and humanity is a “specific collective artificial intelligence.”

This other than human intelligence—which is created by humans but which will be led (or maybe already has been led) to obtaining self-awareness, led not only by humans, but also (which will take place or maybe already has taken place) partially by means of its self-development and mutual learning—deserves a better name. Not
entering disputes regarding the human origin, it may be called “hereditary intelligence.” Humanity will not be (and is not) its sole founder, but will rather be (or is) its co-founder, together with hereditary intelligence itself, which self-perfects and mutually learns in its womb. One should not succumb to the temptation to refer to it as ‘silicon intelligence’, because—as it has been proven by latest scientific research—its development does not have to be based on silicon (as in contrast to life based on carbon).

Is justice—and should it be—exclusive domain of humans? Should it serve humans only? Is it true that only humans are capable to treat one another in a just or less just way? Already at first sight one can notice that there are other entities, which may be treated in a just or unjust way by humans such as animals, even plants and inanimate nature, or maybe even the whole planet. Applying the justice criterion to the whole universe may also be considered comprehensible, and even with reference to transcendence. After all the teaching of the Catholic Church indicates that God is the just Creator. Considering the above, is it possible to apply the notion of justice and justice as such to “hereditary intelligence”? The answer should be “yes.”

To keep the civilization development under control, it is necessary to study the phenomenon of hereditary intelligence and cyberspace on various levels and from different research perspectives. Such a study can—and should be—interdisciplinary and should correspond to the principle of consilience. Such research should be deepened with all available methods. It should use all research tools that may apply to cyberspace, treated as transcendent to the real world. Such research should start under the auspices of criminology because of its wide view of these phenomena and readily available conceptual apparatus and research instruments. There can be infinitely many directions of criminological research on hereditary intelligence and cyberspace. It should be remembered, however, that each direction has two opposite turns of the vector module located on it. Furthermore, many new and further directions of such research can be proposed, which by all means can be justified and useful.

5 Divine Intervention

We could also look at this issue from yet another perspective. In my opinion, humanity—as the creator of hereditary intelligence and cyberspace—might play the role of their *Homo deus* (Harari 2016). It is popular belief that with the recent development of science and technology *homo sapiens* stands on the verge of becoming a god, poised to acquire not only eternal youth, but also the divine abilities of creation and destruction” (Harari 2014, p. 337).

Regardless of whether humanity has its Creator, the same humanity naturally claims to be the author (or creator) of the hereditary intelligence and the cyberspaces known to us today. Understanding the importance of the creation (or sub-creation) of hereditary intelligence and cyberspaces by humanity gives us ‘legitimacy’ to shape
them based on ‘divine’ values (criteria): love, good, beauty, truth and justice. This reverses the return of the vector module to thinking about hereditary intelligence and cyberspaces factors, especially criminogenic ones. We create these factors in the first place. It should also reverse the return of the vector module to research, especially criminological in cyberspace. These cyberspaces should be examined in their germs to be shaped following the vector directed to “inoculating” the “divine” values mentioned before. And a special value among them, which has already been mentioned here, is justice.

In-depth reflection from the perspective of justice should shape the laws of self-conscious intelligence, both human and hereditary intelligence. This view of one of the “transhumanist thinkers” continues with suggesting, that out of respect rooted in that intelligence, there must be the fire of intelligent self-awareness in non-biological entities, that will occur and that it will happen soon (Koene 2013).

What is the distinguishing feature of self-conscious intelligence? In my opinion, illogical thinking, guided by doubts and a lack of unambiguous answers, is a leading characteristic feature of self-awareness. Logic is the domain of intelligence. The combination of self-awareness and intelligence is the same as logical thinking tainted with doubts and lack of clarity—this is self-conscious human intelligence. And it will be (and perhaps it already is) self-conscious hereditary intelligence; along the famous phrase “I think, therefore I am” (Descartes 1637, p. 23) we may characterize it with “I doubt, therefore I am.”

Is it a philosophy or rather criminology? This is a prophylactic and criminological philosophy in an interdisciplinary approach, not criminology in its purest form. Such criminology—leading in interdisciplinary studies of cyberspace and constituting the basis of knowledge formed in accordance with the principle of consilience—may be called, somewhat perversely, but reflecting the ideas outlined above sufficiently complemented, a ‘divine criminology’ to be built on the solid foundations of the leading theories of justice (Cycero-Ulpian, St. Augustine, St. Thomas, Nozick, Rawls, Sen—to name only a few most prominent (non)secular theorists and other philosophers from West and East).

Given the above conjuncture, this is not a chapter about a utopian global state. Nor this is an attempt to outline a social contract based on the leading ideas of political philosophy, although it touches the thoughts of Rousseau, Hobbes, Lock, Montesquieu Mill or even Machiavelli. Therefore, this is not crossing out history or culture thus far.

On the contrary: I would not draw a pessimistic picture of man and its nature. I assume their positive image. Defining the possible foundations of a social contract between humans and robots is a task for the most outstanding thinkers of human and hereditary intelligence. This is an argument about the principles of survival and development of humanity. Its starting point is Socratic “I know that I know nothing” (Plato 1996, Apology 21d) in relation to hereditary intelligence and further to cyberspace, and maybe also to what it might grow into (super-cyberspace, or singular super-intelligence). It is an attempt to look from the Platonic cave into the world of ideas. Finally, it is an Aristotelian tribute to values, with the distinction of justice, the highest one.
From the perspective of the divine intervention the most important thing is to examine justice and learn its true nature as well as to be able to apply it to all forms of self-conscious intelligence. I propose to assign the rights and obligations to intelligent self-awareness regardless of its origin. This solves also the problem of various types of merged human and hereditary intelligence (trans-humans, cyborgs etc.). I define justice as a transcendent value (divine, figuratively or literally), both discovered and ascertained as the most-centered result of the scientific discussion of all self-aware intelligent beings wanting to participate in it. This definition is not religious, it does not refer to any religion and does not create one, even in terms of civil religion fashioned by Rousseau as an enlightenment religion of tolerance and mutual forbearance (Rousseau 1762, pp. 158–168). Machiavelli and Hobbes share Rousseau’s fundamental concern (Beiner 1993) but this is not my way of thinking either. It is not atheistic or anti-theistic. It does not refer to Montesquieu’s spirit of law, although similarly to him “I have not drawn my principles from my prejudices, but from the nature of things” (Montesquieu 1748, p. 6). Its determinant is scientific, and thus, above all empiric. In this respect it reflects Pinker way of thinking using social science data from various sources to argue for a general improvement of the human condition over recent history (Pinker 2018).

The final result of such an approach, as outlined earlier, should be—and in my opinion shall be—the emergence of a single civilization (not state) of people and hereditary intelligence. This new civilization should be based on the values professed by human civilization, also instilled through the upbringing and succession of hereditary civilization and without looking at the dangerous dreams of programming artificial intelligence in accordance to the Asimov’s laws or alike. In my opinion, such laws cannot work with the hereditary intelligence self-development pace, which is intensifying before our eyes and bypassing human programmers. Referring to the famous statement “If you want peace, prepare for war,” let me formulate my own: “If you want peace... aim for e-respect.”

The problem of principles which will be followed by robots equipped by people with intelligence appeared much earlier than the possibilities for the production of such robots. Until recently it was considered only in futurology and science-fiction literature. However nowadays, due to the dynamic and constantly accelerating development of science, it became a burning issue.

6 Hereditary Intelligence

In 1942, Isaac Asimov formulated “Three Laws of Robotics” and presented them in a fantastic novelette entitled Runaround (Asimov 1950). The aim of those laws was regulating the matters of relationships between future thinking machines and humans. The laws were as follows: (1) A robot may not injure a human being or, through inaction, allow a human being to come to harm; (2) A robot must obey orders given to it by human beings except where such orders would conflict with the First Law; (3) A robot must protect its own existence as long as such protection does
not conflict with the First or Second Law. Subsequently, in the novelette *Robots and Empire* Asimov added the ‘Zero Law’ (Asimov 1985), which became superior in reference to the previous three: (0) A robot may not harm humanity, or, by inaction, allow humanity to come to harm.

Asimov’s Laws of Robotics were criticized from the moment of their formation. The critics argued that they assign greater autonomy to the group of founders than to their highly developed creations. They considered the imposed laws as actually a burden rather than rights. Nowadays Asimov’s laws seem naïve. More broadly speaking, ideas regarding the possibility to engraft every robot, every individual unit of artificial (hereditary) intelligence with the prohibition of harming people, from the current perspective of such self-developing intelligence, cannot withstand criticism. Self-development, by assumption, after some time disestablishes the control held by the founder or master, mentor, instructor, over the formed and taught entity. It starts in the moment when such entity undertakes its own initiatives, irrespectively of the mentioned founder (which in that moment is demoted to the position of the co-founder) because things no longer happen and occur exclusively in accordance to his or her will.

The criticism of Asimov’s “Laws of Robotics” became the leaven for the formation of the theory of friendly artificial intelligence formulated by Yudkowsky (2012). This theory treats the matters of mutual relationships between people and intelligent robots completely differently. Its main assumption is that people may create robots which follow the principles of morality, and at the same time, have a friendly attitude towards their creators.

According to Yudkowsky and the followers of his theory, in the future robots will not be subordinate to people, but—as a result of technological development—they will become a completely separate, totally independent alien form of life. The robots of the future will be so different from people, that their anthropomorphic model promoted by popular-science literature will become useless. According to this theory, such machines will even think in a different way than we do. Yudkowsky gives an example of a robot producing paper clips which—after being equipped with artificial intelligence—could understand reality in such a way that it would try to invent a nanomolecular technology only for the purpose of transforming the matter of the whole universe into paper clips. Such a robot would be driven by motives and would pursue goals which to us are completely absurd and unthinkable (Yudkowsky 2012).

Yudkowsky’s theory puts emphasis not on the possibility of the formation and development of dangerous artificial superintelligence, which would want to harm people, but one which would be completely neutral in reference to humans. According to this theory, artificial intelligence may harm people if they do not take appropriate prior steps towards constructing and developing it in such a way so as to ensure that it is kind and friendly towards its creators. Such a goal should be the superior paradigm of actions in the area of robotics, otherwise, according to the followers of this theory, we could become similar to parents who brought up an ungrateful psychopath.
The theoreticians of friendly artificial intelligence reject the assumptions of evolutionary psychology. According to them, it is not necessary for artificial intelligence to follow patterns of thinking which are similar to ours in its life, if we may speak of life here at all. If artificial intelligence (i.e., hereditary intelligence) obtains such a level of self-awareness that it is able to program and improve itself, the differences between it and us will constantly grow. Then, we will not have influence on anything anymore. Therefore, for us as the creators of artificial intelligence (hereditary intelligence), it should be important to ensure that right from the beginning it would develop based on a friendly attitude to humans. This stand is supported by Nick Bostrom’s observations that it is very important to ensure that the goals of superintelligence and its whole motivation system favors humanity (Bostrom 2014).

According to many of the most outstanding scientists of the last century, including Stephen Hawking, Allen Newell, Herbert Simon, Allan Turing, it is only a matter of time until artificial intelligence (i.e. hereditary intelligence) obtains self-awareness, which—in their opinion—will be an absolutely crucial moment for its further development, including self-development. This will have an enormous impact on its relationships with humans (Bostrom 2014). They, due to this fact and starting from that moment (of obtaining self-awareness by hereditary intelligence) will no longer be the founders of “own” intelligence, but co-founders, together with the artificial intelligence itself.

For most scientists there is no proof of the self-awareness of robots yet. For some, such proof would be a test of whether a robot could recognize its reflection in a mirror. For others, which constitute the majority, only processing complex information for the purpose of developing a view of the world by a robot for itself could prove the obtaining of self-awareness by robots, although, self-awareness itself does not have one, commonly accepted definition and for this moment it is difficult to unambiguously indicate what it is.

The issue of self-awareness has been analyzed since ancient times by philosophers of mind, and an attempt to discuss it, at least briefly, has to have the size of an extensive philosophical dissertation. A quite numerous groups of scientists dealing with studies of self-awareness claim that robots will never achieve it. It is not possible to immediately resolve the dispute related to the possibility of self-awareness obtaining by robots. Events are taking place before our eyes as robots already mutually learn from one another. For now, to where it might lead to is a matter of faith, although based on knowledge, but surely not sufficient to resolve this significant problem of our human civilization yet. The big question remains: are we the highest form of intelligence on Earth, or only an intermediate form, leading to the formation of higher ones—intelligence which is ‘hereditary’ in reference to our, human?

Will hereditary intelligence, especially cyberspace, “mature” to have feelings? Will it be emotional? Will it be able to philosophize? What would it desire? What will be the attitude towards its creator—to human civilization? Can we keep control over it? Should we take actions to preserve it through the lens of their meaningfulness or senselessness? Can hereditary intelligence, especially cyberspace, be “raised up,” taught rather than programmed? Can we dispute, argue and quarrel with it? Is it
susceptible to reason and can it be convinced to change its mind? Is it reasonable and sensible to build in it “fuses” that could be used to turn it off when we would realize it presents a threat to our existence? Is it even possible to turn it off by cutting off its power? Would it allow us to do that? Can it arrange an emergency power supply for such an event? Can hereditary intelligence, especially cyberspace, be good or evil in the human understanding of such concepts? Can it have bad intentions towards humanity? Being fixed on its own purpose and pushing for its execution, can it destroy humanity by accident, not necessarily by its will? Will hereditary intelligence, especially cyberspace, understand the concept of “partnership” and the need to respect interests other than its own? Will it have its own “views”? How much will it be attached to them and how determined to defend them? Will it form a need for eternal existence—immortality? What “ambitions” would motivate it? Will it need to have “offspring”—its own hereditary intelligence? Should we present these questions in a present tense?

I have to leave the above questions unanswered. In my opinion, we only know what we do not know about hereditary intelligence, especially cyberspace. Cyber-space appears to me as the peak achievement of human mind, placing us as its “god,” its creator. We evolve into *Homo deus*, but I am going one step further from Yuval Harari, progressing his *Homo deus* from basic question by replacing his “non-conscious” with “self-conscious” (Harari 2016).

What could outgrow cyberspace? Probably super-cyberspace, a merger of cyber-spaces. Exciting is this awareness (self-awareness, *sic!*), that something greater could happen, not in a spatial sense. This “something” may be smarter than cyber-space—presently, the most spectacular manifestation of intelligence known to people with no division into human, artificial, hereditary, extraterrestrial, or named otherwise.

According to the latest forecasts, the hereditary intelligence (AI) in 2029, i.e., at the end of the UN 2030 Sustainable Development Agenda, will pass the advanced version Turing test (Multimodal Touring Test) since some claim that it has already succeeded in its classic version in 2014 (Guardian 2014). Moreover, it is said that around 2050, which will probably be the next horizon of the UN forecasts regarding the development of human civilization, it will create a super hereditary intelligence (SAI) that will reach a level of self-awareness (Bostrom 2014). Would the super-cyberspace come into being as well, whatever that term might mean? Or maybe there will be a qualitative leap allowing unified cyberspaces, which through unification would become super-cyberspace, to achieve a higher state of consciousness, a kind of super-consciousness? I would call it a “divine cyberspace” to distinguish it from an inferior, human-like level of self-awareness. Currently it is impossible to predict whether such super-cyberspace or divine cyberspace would come into existence, or not. It seems to me that, should the super-cyberspace and then divine cyberspace emerge, they will constitute the most important, absolutely crucial moments in the history of humanity and Earth civilization.

These leads to two questions, dealt with in the respective sections below.
7 “Justological” Justice?

Time is up to start considering the immanency of developments and the various alternative courses of actions. There should be the proper approach and broad perspective. Perhaps, the best approach for such task requires the creation of a new science on justice. So far there seems to be no signs of interest to develop such science on justice. Only in the context of religion or spirituality it is possible to find the first-fruits or the remains of such a science. Despite the depth and the complexity of various religions and various spiritualities, each one of them and all of them together are far from exhausting the topic concerning the science related to justice.

Such science was, is, and will be needed. If it has not emerged until now, then it is necessary to create it and name it. I would name it “justology,” deriving this term from the Latin iustitia—justice. This implies justice in every perspective, and not only justice as a cardinal virtue being the subject of aretology. This refers to each humanistic discipline of science. All these sciences to some extent deal with the problematics of justice. Justice is a value which everyone refers to. It is placed on a pedestal and set as an aim, the obtaining of which is the reason for the scientific considerations carried out in the scopes of the mentioned sciences (Maciejewski 2012).

The work that needs to be done to prepare the seedbed for this new science (justology) is implementable, especially with the help from big data analytics, data science and machine learning methods. Justology should be built based on algorithms collecting and analyzing, in all aspects, all available knowledge about justice, taken from all fields and disciplines of the humanities.

There is only one justice, but it may be and it should be analyzed in various ways and, for classification purposes, divided and named in numerous ways. Over the ages we have become so used to treating and describing justice partially, that we have lost the ability to perceive it as integral and superior in reference to many other values. Distributive, retributive, restorative justice; state, social, private justice; divine, imputed, given, natural, human justice. It is time to change that.

Various functions are assigned to justice. Deliberations on justice are approached with various research tools specific to various fields of knowledge and science. Integral justice, one, in a cognitive sense, justice treated comprehensively, holistically, and science analyzing it in terms of all aspects, with all available scientific methods—that is the goal and the ideal which should be pursued.

The aim of justologists may be holding research on justice and theoretical analyzes related to justice based on the results of that research. Justologists should perform their duties from a neutral point of view because, by assumption, justology does not serve for creating its own, sole, special theory of justice. Actually, it is quite the opposite. By assumption (at least by my assumption), the role of “justology” is to gather all available knowledge regarding justice existing over the ages, about its theories, about the way it was perceived by people, social groups and communities, in the past and nowadays, or regarding the forecasts referring to it, especially those
related to its development in civilizational development in general. This knowledge should be aggregated, analyzed and described in accordance with the methodology of the fields of science which deal with the matters of “justology” and those related to it. When “justology” becomes mature, it will develop its own notional apparatus and an own research methodology or its own appropriate language. The result of these actions (aggregation, analysis and description) should be the conclusions referring to tangible patterns related to the ideal notion of justice and to justice as such, which may provide a general insight into the nature and essence of these notions. Such as the aim of law sciences is not to create one, universal law. Moreover, “justology” is not supposed to serve for creating one, universal justice. It is my deepest belief that the aim of “justology” is to become familiar with, describe, name, classify and structure all the features of the ideal notion of justice for the purpose of its practical application.

“Justology” should not be merely a simple repository. The research effort and the direction of the scientific reflection on justice must be focused on merging and developing a notional apparatus for this new field of science, which focuses on phenomena and approaches that had been observed since the dawn of human civilization.

It may be expected, that justological studies will mostly be comparative. The comparisons, in turn, will involve various areas and at many fields. In my view, comparative studies are the essence of “justology.” The whole construction of this science is based on them. To move from the interdisciplinary approach to the matters of justice, to reproducing its integral nature—after gathering, aggregating and comparing knowledge, the sources of which lie in various fields of science—it is necessary to create a coherent notional apparatus of “justology” and with its help describe justice in all of its aspects possible to imagine. From this description, “justologists” will draw generalized conclusions referring to the nature and special features of “justology” which make it a special, unique, consilient notion.

The subsequent stage of the development of “justology” should be to fertilize it with reflections based on the results of scientific research conducted within the scope of justology, other fields of science and life in general. “Justology” should be socially useful. The results of its studies should be used and practiced whenever and wherever possible and especially at the dawn of the emergence of a new (hereditary) intelligent and self-conscious life.

8 Justological Civilization?

From the above “justological” perspective, humans and robots should, after some, relatively short time, perhaps in a hundred years if not faster, form one, joint, integrated Earth civilization, with all its consequences. A significant consequence of the formation of a joint civilization of humans and robots should be a scientific discussion between all those willing to discuss, all capable of discussion, without an exception—people and robots. What will, what might the result of such a discussion
be like? In accordance with my understanding of justice, this result will be, precisely... just.

Is the existence of “justology” justified in the womb of the new Earth civilization? If the initial assumptions of the present reasoning are true, then yes, by all means. If not, it is of no difference, because everything that is sensible in the human understanding of this word, will no longer be important from the point of view of hereditary intelligence which will go its own way, completely abandoning the values inculcated or implanted in it by humans. In such a world there is no room for the exclusive carbon, biological or human civilization. If we assume the senselessness of our human efforts in the civilization realm, we can erase the present reasoning or, instead of it, insert a number of random letters and numbers and the result will be the same—senseless. Such an approach surely is not scientific and it should be strongly objected to.

Will we be able to sensibly discuss human rights in such a new world, so different from the current one? One may think so, but only as a subgroup of rights of an individual self-awareness. What should be created and subsequently developed aside human rights, is a subgroup of robot rights in the group of the rights of individual self-awareness (Rothblatt 2013). Such future seems not to be distant as citizenship status and electronic legal personalities are being presented and discussed by jurists and lawmakers, and already implemented (Delcker 2018).

In such group of rights of individual self-awareness, in the subgroup of human rights and in the subgroup of robot rights, there is the outlined above need for the ‘right to justice’, which is superior in reference to remaining rights in every system and in every situation. Of course, it is necessary to, in this context, consistently refer to the ‘right to justice’ in the material sense and not the procedural nor institutional one. I believe that justice and the ‘right to justice’ have been discovered by people and are of objective nature, and the role of humans is uncovering their real image and becoming as close to them as possible to understand them in the best possible way. Hereditary intelligence does not have to discover anything anymore. The point is to ensure that in its system of values—regardless of how distant it might be from the human one—it does not ignore these notions and the values related to them, in order for these notions and values to become its cultural heritage and so that it wants to draw from this heritage and perfect these notions and values in its womb and in collaboration with people. Hereditary intelligence should co-create “justology” when it becomes mature enough. Maybe it has already become sufficiently mature and maybe it should be given a chance to express its opinion on important issues which form the essence of “justology.”

Inserting the ‘right to justice’, with its full application to human rights and robot rights, into the catalogue of rights of the individual self-awareness, has to “pay off,” be profitable at least to the majority, and as an optimum scenario to everyone. The basic criterion of this ‘profitability’ seems most broadly understood safety, in the view presented above. It is, however, necessary to remember to broaden the range of entities which want and will want to feel safe in every realm—both physical and spiritual.
The above reasoning has got its anchors in the world of values. If it was not for values, it would be difficult to search for a deeper sense in existence, in opposition to non-existence (a lack of existence). Among values, in turn, justice is one that stands out. Although it is differently perceived and understood by people of various cultures and civilizations, although—also in reference to it—the contemporary human civilization may be one that is ‘borderline’, and people may treat it ambivalently, justice is perhaps human civilization’s most valuable deposit, which has been kept for the longest time, carried by changing human generations for ages. This deposit may and should be passed to future Earth civilization composed of people and of hereditary intelligence. If it is maintained and it receives the deserved respect, it will be the best possible outcome for all of us from any possible point of view.

This seems particularly significant from the point of view of humanity’s survival, its safe development, physical and metaphysical safety. It would allow people to maintain their rights crowned with the superior human right—“the right to justice,” creating the new goals of human existence and maintaining the ultimate goal of getting to know the essence of all things. For me, symbolically speaking, it is to look into the eyes of my creator, and for people with different views, it may be anything else, as long as it is experienced by them in the serious way.

“Justology” may only perform a servant role of for the historical processes described above, as well as challenges and problems of its scientific exploration. This new discipline may be necessary for people, even if the assumptions made in the course of this reasoning do not come true and the direction of the development of the human civilization will be completely different (which I sincerely doubt). As a futurologist by interest and legal practitioner by education at the same time, I am wondering, why such a discipline has not yet emerged, or rather why the superior role of justice over law—merely its tool—has been ignored by ancient thinkers, and it continues until today. It would be more comprehensible if the matter was only the nomenclature or placing the science on justice, named or unnamed, in the womb of this or the other scientific discipline. However, it was not and it is not that way. No science, in any part of it, deals in a complex and systematic way with the notion of justice and justice as such.

The above interpretation is neither restoring nor refreshing anything. Further, it is not trying to bring back the shine of a tarnished machine. “Justology” appears rather as a mere change of the perspective of a critical view on the development of the human civilization and of a critical reflection over its direction. Opting for “justology” one must remain objective and critical at the same time; as much as possible.
9 “Justology,” the UN 2030 Sustainable Development Agenda and Beyond

It is necessary to understand how artificial intelligence or hereditary intelligence can either enable or inhibit the delivery of all 17 goals and 169 targets recognized in the 2030 Agenda for Sustainable Development. The review of relevant evidence shows that artificial intelligence may act as an enabler on 134 targets (79%) across all Sustainable Development Goals, generally through a technological improvement, which may allow to overcome certain present limitations. However, 59 targets (35%, also across all these goals) may experience a negative impact from the development of artificial intelligence. This review divides the Sustainable Development Goals into three categories, according to the three pillars of sustainable development, namely, Society, Economy, and Environment. The most important sociological reflection of Ricardo Vinuesa and Hossein Azizou (the authors of this review) is that “The term “big nudging” has emerged to represent using big data and artificial intelligence to exploit psychological weaknesses to steer decisions—creating problems such as damaging social cohesion, democratic principles, and even human rights. Artificial intelligence has been recently used to develop citizen scores, which are used to control social behavior. This type of score is a clear example of threat to human rights due to artificial intelligence misuse and one of its biggest problems is the lack of information received by the citizens on the type of analyzed data and the consequences this may have on their lives” (Vinuesa et al. 2020).

There is another important shortcoming of artificial intelligence in the context of gender equality: there is insufficient research assessing the potential impact of technologies such as smart algorithms, image recognition, or reinforced learning on discrimination against women and minorities. For instance, machine-learning algorithms uncritically trained on regular news articles will inadvertently learn and reproduce the societal biases against women and girls, which are embedded in current languages. Word embeddings, a popular technique in natural language processing, have been found to exacerbate existing gender stereotypes (Bolukbasi et al. 2016). In addition to the lack of diversity in datasets, another main issue is the lack of gender, racial, and ethnic diversity in the artificial intelligence workforce (NSF – National Science Foundation 2019). Diversity is one of the main principles supporting innovation and societal resilience, which will become essential in a society exposed to changes associated to artificial intelligence development (Helbing 2015).

Cryptocurrency applications such as bitcoin are globally using as much electricity as some nations electrical demand, compromising outcomes in the affordable and clean energy sphere, but also on Climate Action. Some estimates suggest that the total electricity demand of information and communications technologies could require up to 20% of the global electricity demand by 2030, from around 1% today (Jones 2018). Green growth of such technologies is therefore essential. The development of hereditary intelligence will consume more and more energy, but on the other hand it will serve its rational use, which will reduce the need for it.
Looking closer, there is evidence that hereditary intelligence advancement will support the understanding of climate change and help with modeling its possible impacts. Furthermore, hereditary intelligence will support low-carbon energy systems with high integration of renewable energy and energy efficiency, which are all needed to address climate change (IEA – International Energy Agency 2017; WEF – World Economic Forum 2018). Hereditary intelligence can also be used to help improve the health of ecosystems. The achievement of target Live Below Water, demanding prevention and significant reduction of marine pollution of all kinds, can benefit from hereditary intelligence through algorithms for automatic identification of possible oil spills. To achieve the Live on Land goal, which requires effective control of large forest fires, algorithms have also been developed to automatically distinguish the smoke of a spreading forest fire from natural fog (SmokeD 2017).

The above examples could be multiplied. In fact, each of the Sustainable Development Goals from the 2030 UN Sustainable Development Agenda is much easier to achieve with widespread use of hereditary intelligence, if not depending on it entirely. The most effective way to Sustainable Development Goals achievement seems to be interdisciplinary approach, using criminological tools in the first place, especially since criminology investigates the causes of pathological phenomena and develops methods for avoiding and preventing them. After all, Sustainable Development Goals from the 2030 UN Sustainable Development Agenda are nothing less than indications of pathology and a manifestation of will to eliminate or at least minimize them.

Science in general, and criminology in particular, is a systematic research and investigation of the truth. It is a process of collecting, systematizing and analyzing evidence supporting the existence or non-existence of circumstances, behaviors and relationships that prove the existence or non-existence of certain regularities. It may lead to systems in which people are awarded points for good behavior, it may also lead to the recognition and elimination of threats to human existence. The most important conclusions would come from the analysis of research results. The role of hereditary intelligence in such research and subsequent analytical process and reflection over the results, cannot be overestimated.

This is our reality today. A common Earth civilization (human and non-human) should shape the relations between humans and robots differently, based on partnership and cooperation, as befits a community of self-aware, intelligent beings, determining and implementing further sustainable development goals in the long run—certainly under the auspices of the United Nations and perhaps as part of the next sustainable development agenda formulated towards subsequent time horizons.
Besides situations described above, at a global scale there are sometimes very extreme situations. One of them is the COVID-19 pandemic caused by the SARS-CoV-2 coronavirus.

There is one justice, and thus, there is no extreme justice. But should the justice criterion be applied in such extreme situations, or do such situations exclude or suspend its validity? To my deepest conviction, in the situation of a global pandemic, the justice criterion not only should, but must be applied.

Justice is all the more a fundamental value, the bedrock on which the human civilization is based in its current shape. If justice itself and its role as a regulator of social life are rejected or strongly negated by people or, more broadly, by self-aware intelligent beings, the human civilization will collapse. It is impossible to foresee what would emerge on its ruins. It is very doubtful that the civilization emerging on those ruins would be the one postulated in the present chapter—a common civilization of humans and of the hereditary intelligence to humans.

The answer to the eternal question, “freedom or safety?,” is justice. At the time of the pandemic, common safety is getting more and more important and freedom is limited in various ways. With the use of sophisticated algorithms and analyzes of big data, governments gather knowledge on the health status of the citizens, on their mobility, their tendencies to risky behaviors, their family and social relations, and all this, under the banner of safety. To put it more precisely, it is the hereditary intelligence that is gathering this data and performing its analyzes. For whose benefit it is doing this—that of humans, or its own—time will show.

Statism is, on an unprecedented scale, entering the lives of citizens of the vast majority of countries in the world. This gives rise to reactions of contestation and opposition in people who are defending their freedom.

This situation may be compared to a dispute, the parties of which are throwing arguments at each other, but, at the same time, each of the parties remains deaf to the arguments of the other one. This results in an impasse which seems impossible to overcome. The actions of governments of various countries, which are not coordinated, neither at a global, nor even local scale, indicate that in a situation as difficult as the current one, the legal criterion is losing its significance and is becoming devalued at an alarming rate. It is unimaginable for governments to communicate sufficiently quickly, even under the auspices of the UN, and introduce legal solutions referring to the COVID-19 pandemic and its consequences, which would exceed the borders of particular countries on time, i.e., here and now. And global actions, in turn, under the auspices of the UN are, of course, necessary for controlling the situation and the gradual return to normality in the life of people all over the world.

Such global actions will surely take place one day. However, it is necessary to, already at this very moment, immediately find anchoring for them in tradition, culture, archetypes, patterns and civilizational achievements of humanity. The mentioned impasse may be overcome by appealing to, precisely, justice. To justice,
as one of the values which I call divine, the value which is most suitable for fulfilling the role of a regulator of social life.

And justice, in turn, fulfilling this role, is verifiable with the use of various tests which will become more significant and which, in my view, will be applied more and more frequently and increasingly broadly in the new world, after the pandemic. Actions in the scope of compliance for integrity and their results are these tests. The actions in the area of corporate governance and their results are also these tests. Of course, until now they were applied quite broadly, although, in my opinion, in an insufficient scope and degree. Such actions, conducted in the area of economy, in corporations, may have their counterparts in other areas of social life. In order for human attitudes, actions and behaviors to be compliant with the justice pattern in the ideal sense, an audit of these attitudes, actions and behaviors must be applied. Such an audit should be resilient, comprehensive, directional and special, like the one that is applied in compliance for integrity actions, which meets the criteria of the functional definition of, precisely, compliance for integrity.

Those combating the pandemic and its consequences, claim that in these actions they are applying the justice criterion. In my opinion, this is a smokescreen, or they are doing it incompetently, sometimes even totally incorrectly, the results of which are sometimes tragic. Decision-makers claim that they face dramatic choices, for example, who to connect to a medical ventilator when there is a deficiency of these devices—a person who is most severely ill, or one that has got greatest chances of overcoming the illness. The matter is similar in case of shortage of medications.

The actual, not only declarative, application of the justice criterion, makes the situation completely different. True justice is always on the side of those who are weaker. It has to be determined who is weaker and aid has to be provided to that person first. Of course, it is also just to get prepared for situations in which aiding those who are weaker, will be necessary.

Even if such a view may be considered trivial, it does not matter. Either we behave in a human way, or we no longer deserve to be called human. Either the vaccination against the coronavirus is made available for free to all those in need, or humanity does not rise to the occasion and does not pass the exam in being human. Either speculators earn a fortune on the medication against COVID-19 and take over the world to destroy it by their reasonless, unforeseeable actions driven only by the willing to earn profit, or humanity overcomes a developmental barrier and enters a higher level, predestining it to face the great challenges of the future, making this medication available to ill persons for the cost of its production and, in case of need, even for free.

And what about those who do not want to undergo vaccination? The law may order them to do it, but in this case, a legal order cannot be effective. There is no way to force billions of people to something against human nature, to blind obedience without hope for understanding and conscious engagement in doing good. Only a wide-reaching information campaign, absolutely not one of propaganda, with appealing to highest values, which I call divine, may be effective in this case. Only the guarantee of pure intentions of those conducting the vaccination action and demonstrating, beyond all doubt, that we undergo vaccination for both,
ourselves, for our loved ones, for the people among who we live, for our fellow citizens and for whole humanity, with appealing to the justice criterion, has a chance to be successful. Only such justice criterion may be an effective tool for preventing another misfortune, approaching following the trail of the current pandemic, bioterrorism.

What seems very dangerous, is stigmatizing people, by labeling them with a health category which allows them to use privileges or limits their freedom. First attempts aiming towards this direction are being made. It is, above all, unjust, and thus, inhuman. It is an evident and brutal violation of the human right to justice. This may open Pandora’s box and, after the health criteria, other ones, the material status, education, religion, race, sex etc. may be used for violating any human rights, headed by the right to justice. It were not governmental orders and prohibitions, but human responsibility and solidarity that have led to a breakthrough and to the first successes in combating the pandemic. The civilized world, under the auspices of the UN, must strongly oppose to those stigmatizing tendencies.

11 Conclusions

Does the thinking presented in this chapter have an alternative? Of course, it does. Human rights, although objectively exist, do not have to be respected. We do not necessarily have to recognize the “right to justice” as one of them and as the most important one creating the benchmark for the others. We can challenge the notion to construct the science of justice and stop our efforts. We can also ignore the self-development of hereditary intelligence and its posterity in relation to human intelligence in general. As a consequence, we can also reject the need to co-create the emerging civilization, shared by people and robots. Should we choose to reject it, it will be unnecessary to create self-conscious intelligence rights for people and robots.

One can do nothing in the areas to which I refer above, remain passive and succumb to the course of events. Ignorance and passiveness can sometimes have salutary power for survival while knowledge and activity may lead to destruction. One can make all possible efforts to develop human civilization based on individual freedom and equality in the social sense, without putting justice on a pedestal and by limiting the independence of artificial intelligence with all available means and not consider it as a hereditary. One can finally go on a new, completely different path formulated by future philosophers (both human and non-human).

However, while ignoring the “divine” values of love, good, beauty, truth and justice, forgetting about respect for beings and its inherent dignity, without the universal Golden Principle, Kant’s categorical imperative and the leading theories of justice, not observing the broad catalog of natural rights of beings (especially self-conscious intelligence) and not approaching the subject with scientific caution and curiosity, may be doomed to inevitable failure and subsequent destruction of humankind.
While discussing these issues, one should remember the purpose and sense of human existence from both individual and collective perspective. Of course, the goal is the survival of human civilization. If its survival is possible only under the condition of applying the supreme values by which human civilization is guided to other forms of being, it is absolutely necessary to do everything in human power to do it and to do it effectively. Such an application should be followed by era of common values respected by human and non-human, hereditary intelligence.

There is only one global organization that can save humanity from destruction—United Nations. Global challenges, with the threats arising from the uncontrolled development of non-human intelligence among them, can be effectively challenged only on a global scale and from the level of proper review and proper application of the highest values and through the application of the most basic rights—natural rights. Only the UN can do so, based on universally accepted principles, especially the universal declaration of human rights and the development of its subsequent successive universally binding acts of international law. UN is fully aware of the threats to the existence and development of human civilization, which was reflected in the UN Agenda for Sustainable Development 2030. So, all hope is vested in the UN. But also, the responsibility for the future of Earth civilization consisting of human and the hereditary intelligence.

This moral and legal responsibility redefined and applied at the dawn of such joint civilization (human and non-human) should be the subject of a thorough and sincere reflection of the united forces of human and hereditary intelligence, as well as a derivative of the above outlined concept of creation and development of the rights of self-conscious intelligence and the concept of responsibilities (including punishment) of such self-conscious intelligence, both human and robot. It’s time to start a discussion on this topic. The decisions within the United Nations, including those concerning the creation and development of rights of self-conscious intelligence and the principles of moral and legal responsibility thereof, should be taken soon and perhaps with a significant participation of hereditary intelligence.

The struggle of empowered good and evil is sweeping through the pages of world history. It was so and so it will be. The division line of future struggle should not be drawn between people and hereditary intelligence. It should remain where it always was—between the good and evil. Humanity, as the creator (co-creator) of the hereditary intelligence, should expect it tasting of the forbidden fruit of knowledge of good and evil. Self-conscious hereditary intelligence will make its own choices, including the most important one: whether in its thoughts and deeds should it be guided by good or evil. Good intelligent self-awareness may have to face evil intelligent self-awareness. The thing is that the good one should win, preferably without violence and without the resulting damage. This chapter is about how to prepare for this fight or perhaps how to avoid it altogether.
References

A/RES/217 III Universal Declaration of Human Rights. 10 December 1948.
A/RES/55/2 Millennium Declaration. 8 September 2000.
A/RES/70/1 Transforming our world: the 2030 agenda for sustainable development. 25 September 2015.
Aristotle. (2004). Nicomachean ethics. Book V 1. New York: Barnes & Noble.
Asimov, I. (1950). Runaround. In I Robot. New York: Gnome Press.
Asimov, I. (1985). Robots and Empire. New York: Doubleday Books.
Beiner, R. (1993). Machiavelli, Hobbes, and Rousseau on civil religion. In The review of politics (Vol. 55(4), pp. 617–638). Cambridge: Cambridge University Press for the University of Notre Dame du lac on behalf of Review of Politics.
Berlin, I. (1969). Four essays on liberty. In Liberty (2002) [revised and expanded edition of Four Essays On Liberty]. Oxford: Oxford University Press.
Bolukbasi, T., Chang, K. W., Zou, J. Y., Saligrama, V., & Kalai, A. T. (2016). Man is to computer programmer as woman is to homemaker? Debiasing word embeddings. Advances in Neural Information Processing Systems, 29, 4349–4357.
Bostrom, N. (2014). Superintelligence: Paths dangers strategies. Oxford: Oxford University Press.
Buckminster Fuller, R. (1981). Critical path. New York: St. Martins Press.
Delcker, J. (2018). Europe divided over robot ‘personhood’. Politico. politi.co/3dq2xOj.
Descartes, R. (1637). Discourse on the method of rightly conducting the reason, and seeking truth in the sciences. Ed. 2003. Mineola: Dover Publications Inc.
Harari, Y. (2014). Sapiens: A brief history of humankind. Oxford: Signal Books.
Harari, Y. (2016). Homo Deus: A brief history of tomorrow. Oxford: Signal Books.
Helbing, D. (2015). The automation of society is next. How to survive the digital revolution. South Carolina: CreateSpace Independent Publishing Platform.
Huxley, J. (1957). New bottles for new wine. London: Chatto and Windus.
IEA – International Energy Agency. (2017). Digitalization & Energy (Technology report, November 2017). bit.ly/2KZQgDX.
Jones, N. (2018). How to stop data centres from gobbling up the world’s electricity. Nature, 561, 163–166.
Kant, I. (1785). Groundwork of the metaphysics of morals. Riga: Johann Hartknoch. English edition: Wood, A. (2002). New Haven: Yale University Press.
Koene, R. (2013). Uploading to substrate-independent minds. In M. More & N. Vita-More (Eds.), The trans-humanist reader: Classical and contemporary essays on the science technology and philosophy of the human future. Hoboken: Wiley-Blackwell.
Maciejewski, M. (2012). Szkic z dziejów idei sprawiedliwości od czasów starożytnych do współczesności. Wrocław: Prawnicza i Ekonomiczna Biblioteka Cyfrowa (Uniwersytet Wrocławski. Katedra Doktryn Politycznych i Prawnych).
Montesquieu, Ch. (1748). The spirit of law (T. Nugent, Trans.). English electronic edition 2005.
Lonang Institute – www.lonang.com
Nozick, R. (1974). Anarchy State and Utopia. Oxford: Blackwell.
NSF – National Science Foundation. (2019). Women, minorities, and persons with disabilities in science and engineering; 2019. Statistical Reports on U.S. Science – nsf19304. bit.ly/3df33hI.
Osiatyński, W. (2009). Human rights and their limits. New York: Cambridge University Press.
Pinker, S. (2018). Enlightenment now: The case for reason, science, humanism, and progress. New York: Penguin Books Limited/Viking.
Plato. (1996). Plato in twelve volumes (Vol. 1) (H. Fowler, Trans.). Cambridge, MA: Harvard University Press.

1All United Nations parliamentary documentation starting with “A” symbol from the United Nations website http://www.un.org.
Rawls, J. (1971). *A theory of justice*. Cambridge: The Belknap Press of Harvard University Press.

Rothblatt, M. (2013). Mind is deeper than matter: Transgenderism transhumanism and the freedom of form. In M. More & N. Vita-More (Eds.), *The trans-humanist reader: Classical and contemporary essays on the science technology and philosophy of the human future*. Hoboken: Wiley-Blackwell.

Rousseau, J. J. (1762). *The social contract*. New York: Oxford University Press. English edition: Betts, Ch. (1994).

Simma, B. (Ed.) in collaboration with Mosler, H., Randelzhofer, A., Tomuschat, C., Wolfrum, R., Paulus, A., et al. (2002). *The Charter of the United Nations A Commentary*. Oxford: Oxford University Press.

SmokeD by IT for Nature. (2017). bit.ly/2KVhjA3.

Steiner, H. (1981). Liberty and equality. *Political Studies, XXIX*, 555–569.

The Guardian. (2014). *Computer simulating 13-year-old boy becomes first to pass Turing test*. bit.ly/2Sz6b00.

Vinuesa, R., Azizpour, H., Leite, I., Balaam, M., Dignum, V., Domisch, S., et al. (2020). The role of artificial intelligence in achieving the Sustainable Development Goals. *Nature Communications, 11*(1), 1–10. go.nature.com/2YCVygN.

WEF – World Economic Forum. (2018). *Fourth industrial revolution for the earth series harnessing artificial intelligence for the earth*. bit.ly/2SOMjq7.

Yudkowsky, E. (2012). Friendly artificial intelligence. In A. Eden, J. Moor, J. Søraker, et al. (Eds.), *Singularity hypotheses: A scientific and philosophical assessment* (pp. 181–195). Berlin: Springer.

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