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-Abstract-

Along its historical path, humanity has followed an evolutionary process of development from a hunter-gatherer society to an agricultural society, from an agricultural society to an industrial society, from an industrial society to an information society, and from an information society to a super-smart society. Activated by and developed through the desire of humankind to rule over the world of nature and objects, the techno-cognitive mind has led to the birth of modern technology. The drive to transcend the human form that dominates innovative modernism manifests itself in forms such as trans-humans, advanced humans, and cyborgs. In line with this understanding, we can discuss the potential of transhumanist thought, which adopts the principle of developing the super-human, to deeply affect traditional systems. It remains unclear, however, how human rights can be implemented alongside the human imagination developed within the framework of transhumanism and how basic principles of law can be adapted for the trans-human age. There are different predictions for the future regarding the systemic transformation of law in social structures dominated by this understanding.

One of the transformative domains of the digital universe, which is evolving towards technological singularity, is the legal sector, which encompasses the entire legal field from the systematic functioning of the law to processes of judicial action. Indeed, according to some legal futurists, predictive legal analytics will soon result in 'legal singularity'. It is predicted that a legal system based on 'legal singularity' will eliminate the problem of 'legal indeterminacy'. However, the ideal of 'legal singularity', which seeks uniformity, harmonization, and integration through a structural transformation of the legal system, ignores the national characteristics of rules of law. The ideal of singularity, which does not take into account the socio-economic or socio-cultural dynamics and deep sociology of the social structure, would lead to an apolitical social mechanism.

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This article was published Journal of Justice's 66th issue and in 2021/1 year.

Representative onto-robotic devices envisaged by the singularity ideal will not be capable of 'justice', 'fairness', or 'conscience'. Especially in terms of criminal justice, it does not seem possible to substitute a judge who makes decisions based on personal convictions with artificial reason. Therefore, when the basic principles of law are taken into consideration, the realization of criminal justice through artificial intelligence raises fundamental ethical and judicial concerns.

Keywords: Artificial intelligence, digitization, transhumanism, onto-epistemic revolution, onto-robotic representation, judicial act, algorithmic conscience, legal singularity

Introduction

The humanism of modern philosophy, which places humankind at the centre of the universe, has created a transcendental human conception through its progressive and enlightened worldview. This conception envisages the continuous development of the cognitive, affective, and physical abilities of *Homo sapiens* with a progressive vision. It has also put into action technologies intended to develop the aforementioned abilities of *Homo sapiens*, furthering the hegemony of humankind over nature and all other living beings with its constructs of 'super-human' (*hyper-anthropos*) and 'super-subject'. This humanistic potential that has transformed into an existential challenge against God, the universe, nature, and all other living beings has led to an ecosystem destruction that is making Earth, the only planet on which human life is currently possible, uninhabitable. This humanistic ontology is increasingly absolutizing, totalizing, and deepening its self-determined power day by day. This unstable, impermeable, and absolutizing power, or omnipotence, of humanism that suffocates the 'human' and 'humanity' is producing a new existential state that we can conceptualize as 'transhumanistic ontology' via various developing technologies. This new existential state produced through algorithmic creations, artificial intelligence technologies, robot technology, and android devices is gaining enthusiastic consent for its developmental dynamics on the one hand. On the other hand, it is also causing concerns regarding the existential threats that it poses for human dignity on an ethical basis.

This transhumanistic ontology, which can be accredited to the 'soul-body' or 'mind-body' dualism of modern philosophy, introduces new forms of existence, substitutions, and representations. When various projections of the future are taken into account, it can be understood that such forms and figures produced through diversified and developing technologies will radically transform our world of concepts and our organizational structures on the one hand and our individual and social lives on the other. Predicting the radical transformative effects of these new forms of existence, which we can describe as a new phase of the 'onto-epistemic revolution' envisaged by modernity, surely does not require prophetic powers. This platform of virtuality, unreality, surreality, and artificiality that is embedded in the digital universe is producing and diversifying new life forms, which we can conceptualize as 'onto-robotic representations', at a great speed. This mass production will undoubtedly be continuing to exert its transformative effects, increasingly concentrated in every humanistic field.

Legal reason, legal reasoning processes, and legal practices, which are the subject of this study, are also being reshaped by the gears of this transformative wheel. It is understood that with this process, we will witness the entire conceptual network and institutional structure of legal reason being transformed into a brand-new legal universe in the near future.

Today, humanity is realizing a 'network society' that integrates all sectors of individual and social life and public space and encapsulates all of life imperviously. This modern network society that we now have and the phenomenon of globalization are forcing the entire world into mandatory relationships of internal dependency. This totalizing network, which has emerged from the digital universe, continues to perform its superintending role of dissolving all human subjectivity, individuality, and singularity. The ever 'uniformizing and formative' human conception produced by the modern mentality, which has established itself through meta-narratives, has gained a new form in the digital universe of this network society.

According to Max Weber's (1864-1920) theory of modern society, the attainment of ideal cognitive and physical competence by humans, abstracted on the basis of rationalism and mechanism, was made possible by the dissolvent of 'magic' that dominated the 'ancient' or 'pre-modern' world. The 'calculating, planning, and predictive' reasoning that replaced magical powers has continued to reproduce itself via the platform of progressive philosophy.¹ Moreover, the progress of science and technology has been credited as the main driving force behind what Weber called 'the disenchantment of the world'.² However, the deepest paradox of this modern 'new world' that we are living in has been the transformation of each progressive step or breakthrough taken with faith in 'progressive' ideology into a regression.³ As such, the human development technologies of new onto-robotic forms of existence, which are produced in the digital universe created by the modern 'new world' based on 'soul-body' or 'mind-body' dualism, have targeted the ontological specificity of humankind as an entity producing ethical and political values.

1 Weber, Max, *Essays in Sociology* (trans. Talha Parla), First Edition, İletişim Yayınları, İstanbul, 1996, pp. 212-213.

2 Aupers, Stef, 'The Revenge of the Machines: On Modernity, Digital Technology and Animism', *Asian Journal of Social Science*, Vol. 30, No. 2, 2002, p. 202.

3 Kılıç, Muharrem, *Pandemi Döneminde Sosyal Haklar Sosyal Hakların Sosyo-Legal Dinamiği*, Seçkin Yayıncılık, Ankara, 2021, p. 69.

This study of the legal reasoning processes of artificial intelligence technology, its judicial acts, and its general transformative impact on legal practices will address the new ontologies and substitutive forms of existence that have emerged from the ideal of improving the cognitive and physical abilities of humankind in order to strengthen the anthropocentric potential, from the birth of modern philosophy to the ideas of humanism and from the technological revolution to transhumanism. In this context, attention will first be drawn to new robotic life forms that have come into existence with the development of the digital universe. The effects on the current legal system of the concept of transhumanism and the ideal of reaching a 'post-human' stage that is shaped in parallel with the dynamism of technological development will then be discussed. Subsequently, the effects of decision-making subjects based on artificial intelligence, which we can characterize as components of an onto-robotic representation that reflects the concept of transhumanism, on the fundamental principles of law will be analysed. The question of whether these onto-robotic representation devices have virtues such as 'practical wisdom', 'justice', 'fairness', or 'compassion' in terms of the fairness of their decision-making mechanisms will be considered. Finally, the philosophy of legal singularity, which is conceptualized as the ideal of achieving legal certainty and an uninterrupted legal system, will be discussed.

1. Development of the Digital Universe: Onto-robotic Forms of Existence

Human history has followed an evolutionary process of development from a hunter-gatherer society to an agricultural society, an agricultural society to an industrial society, an industrial society to an information society, and, most recently, an information society to a super-smart society. These progressive stages of societal development along this evolutionary and historical path can be regarded as 'Society 1.0, 2.0, 3.0, 4.0, and 5.0'. Among these stages of development, Society 1.0 entailed groups of humans living in harmony with nature and hunting, while Society 2.0 comprised societies based on agricultural production with increased organization and the creation of nations. Society 3.0 saw the emergence of societal structures that made the Fordist mode of production possible with the industrial revolution. Society 4.0 involved information-based societal structures that integrated information networks and produced added value, and now Society 5.0 corresponds to a 'super-smart society' that aims to establish an anthropocentric system based on maintaining a life of prosperity. Today's humanity is living in a digital age in which the globalized presence and fast evolution of digital technologies such as the internet of things,

artificial intelligence, and robotics have brought significant changes to society. The rapid development of information and communication technologies has led to dramatic changes in various realms from the social order to business life. For this reason, digital transformation is becoming the central pillar of industrial policy worldwide through its ability to create new values. In light of the influence of this global digital transformation, Society 5.0 was conceptualized and adopted by the Japanese government in January 2016 in the country's 5th Science and Technology Basic Plan.⁴

Within that aspirational framework of creating a 'super-smart society'⁵, Japan aims to implement the philosophy of Society 5.0. The goal here is to create an 'anthropocentric society' that balances economic progress and solutions to social problems with a system that integrates cyberspace and physical space. In this context, the ideal behind Society 5.0 involves the optimization of daily tasks and other social and organizational systems that exceed human physical and cognitive abilities with the use of artificial intelligence and diversified digital technologies. This optimization, which can be described as techno-solutionism, is a part of 'dotcom neoliberalism', which British media theorists Richard Barbrook and Andy Cameron have also referred to as 'Californian Ideology'⁶. This ideology also persists in the rhetoric of the entrepreneurs who have developed LegalTech, or 'legal technology', practices, which dominate legal systems today. LegalTech has launched a new era of 'smart law' based on artificial intelligence and big data.⁷

Artificial intelligence, which is generally said to have emerged in the mid-twentieth century on a historical timeline similar to that of modern computer technology, represents the horizon of expansion for new technical shifts in an era of intensive mechanization brought about by the industrial revolution. This horizon has included the establishment of operating systems with human-specific existential qualities such as autonomy or thought, speaking, learning,

4 Fukuyama, Mayumi, 'Society 5.0: Aiming for a New Human-Centered Society', *Japan Spotlight*, August 2018, pp. 47-48.

5 Saracel, Nüket; Aksoy, Irmak, 'Toplum 5.0: Süper Akıllı Toplum', *Social Sciences Research Journal*, Vol. 9, No. 2, 2020, pp. 26-34.

6 For detailed information., Cameron, Andy; Barbrook, Richard, 'The Californian Ideology', *Science as Culture*, Vol. 6, No. 1, 1996.

7 Markou, Christopher; Deakin, Simon, 'Is Law Computable? From Rule of Law to Legal Singularity', University of Cambridge Faculty of Law Research Paper, 2020, p. 4.

communicating, conceptualizing, and even perceiving. This is based on ideas of substituting human existence with a robotic existence that will replace all human cognitive and affective functions.⁸ The artificial intelligence technology developed based on this idea is considered to be the ultimate 'game changer' for economic and social structures. As a billion-dollar industry that continues its technological development at a great pace, it is regarded as an incredible miracle on the one hand and an incredible source of fear on the other.⁹

Digital technology is described as an 'intelligent device' that has the capacity to autonomously guide each human being. One of the most fundamental goals of artificial intelligence technology is to produce 'thinking machines' that are similar to the human mind, developing applications based on artificial intelligence that can match the intellectual performance of a human by matching or surpassing the cognitive capacity and intelligence of human beings.¹⁰ These digital structures, which undertake increasingly more human tasks and responsibilities in line with this goal, affect our economic, social, and political behaviours and individual choices. Moreover, this level of influence has reached a point that may even lead to the rejection of the 'human' as a whole in the existential sense. In areas that involve the development of technological ecologies, the 'human condition' or the state of being a human being is considered a defect in digital systems.¹¹

These artificial intelligence technologies, which disclaim the 'human condition', are not only technical-robotic devices that ease human life; they also serve as superior 'Promethean actors'.^{12 13} Although technologists may suggest that artificial intelligence should improve the human, not replace it, the hierarchical switch between humans and machines clearly manifests itself in recent

8 See also., Kılıç, Muharrem, 'Ethico-Juridical Dimension of Artificial Intelligence Application in the Fight Against Covid-19 Pandemics', in *The Impact of Artificial Intelligence on Governance, Economics and Finance*, Springer, 2021.

9 Schwarz, Elke, 'Günther Anders in Silicon Valley: Artificial Intelligence and Moral Atrophy', *Thesis Eleven*, Vol. 153, No. 1, 2019, p. 1.

10 Schwarz, Elke, 'Günther Anders in Silicon Valley: Artificial Intelligence and Moral Atrophy', p. 3.

11 Schwarz, Elke, 'Günther Anders in Silicon Valley: Artificial Intelligence and Moral Atrophy', p. 15.

12 In Greek mythology, Prometheus was the hero who stole the secret of fire from the gods and gave it to humans, thus enabling the development of technology and civilization. Prometheus allowed humanity to freely shape the world for itself. See Tester, Keith, 'Review of Prometheanism: Technology, Digital Culture and Human Obsolescence', *Thesis Eleven*, Vol. 148, No. 1, 2018, pp. 103-105.

13 Schwarz, Elke, 'Günther Anders in Silicon Valley: Artificial Intelligence and Moral Atrophy', p. 3.

developments in artificial intelligence. Artificial intelligence technology now has much more advanced abilities in decision-making in many areas compared to humans. Even in the 1960s, German philosopher Günther Anders argued that machines had become 'pseudo persons'.¹⁴

According to Anders, the relationship between modern humans and machines is characterized by a reversal of roles in which humans, as producers and users of those machines, are increasingly being subordinated by the power, logic, and perfection of machines. As a result of this role reversal, the value and functionality of humankind are gradually declining in the face of technological creations. This artificial machine ecology is intensively restructuring our psyche. The inherent limitations of the human physiological structure, cognitive ability, and computational capacity all push the singular human into a feeling of inferiority in the face of machines and make the human unable to compete. Anders regards this situation as a 'source of shame' for a human being, for 'not being a machine' and therefore being 'insufficient' as a functional element in a machine ecology.¹⁵

Anders further claims that '*the machine system is our world!*' and that modern society is a system of machines. The 'Promethean gap' emerges from this modern mechanical universe, defined as the asynchronicity between humans and the products of human labour. This gap further reflects the gap between relationships of production and ideology, production and imagination, doing and feeling, information and conscience, machines and the body, and production and need. In his analysis, Anders re-evaluates Karl Marx's idea of 'alienation' and Georg Lukács's 'reification'. Accordingly, Anders argues that there are three stages of reification': 'the loss of human control over the means of production; the human feeling of shame over not being a thing; and human self-degradation in the face of fabricated things as a result of the human feeling inferior to machine'.¹⁶ Today, the technological fetishism that brought about the Promethean gap conceptualized within the framework of this analysis is taking on new forms such as digital positivism, big data fetishism, or post-humanist ideology.¹⁷

14 Schwarz, Elke, 'Günther Anders in Silicon Valley: Artificial Intelligence and Moral Atrophy', p. 6.

15 Schwarz, Elke, 'Günther Anders in Silicon Valley: Artificial Intelligence and Moral Atrophy', p. 7.

16 Fuchs, Christian, 'Günther Anders' Undiscovered Critical Theory of Technology in the Age of Big Data Capitalism', *TripleC*, Vol. 15, No. 2, 2017, p. 583.

17 Fuchs, Christian, 'Günther Anders' Undiscovered Critical Theory of Technology in the Age of Big Data Capitalism', p. 610.

Indeed, as a result of this technological fetishism, national governments, companies, researchers, and citizens in the global world today are trying to adapt to a new 'world of data', in which bodies of data are bigger, faster, and more detailed than ever before. This can be regarded as a 'data revolution' in a sense.¹⁸ As a result of this data revolution, 'Big Brother' has been replaced by 'Big Data'. From this point, a 'society of transparency' that records every detail of everyday life without gaps emerges. This 'society of transparency' creates the 'digital panopticon', which in turn is producing new surveillance technology.¹⁹

In order to comprehend the threat of a digital dystopia that leads to new surveillance technology, it is important to systematically discuss how digital technologies are used in the welfare state and the effects of these uses on human rights and ensuing problems.²⁰ In a report published in late 2019, Special Rapporteur on Extreme Poverty and Human Rights Philip Alston suggested that the 'digital welfare state still exists as a reality and/or has become a dominant administrative reality in many countries of the world'. This report also notes a serious concern about the descent of humanity into a zombie-like 'digital welfare dystopia'.²¹

To reiterate, in a world that has evolved from a hunter-gatherer society to a super-smart society, humanity is witnessing a new 'digital age', wherein globalization and the rapid evolution of digital technologies have led to social transformations. However, in this globalized world that is evolving towards new contemplative experiences, it remains unclear how humankind will be positioned and given meaning amongst the radical changes and transformations. In today's world where the rule of technological fetishism persists, certain vulnerabilities in the protection of fundamental rights and freedoms and the balance between freedom and security generate serious concerns. It is predicted that the global concerns about current vulnerabilities will become deeper in the post-humanist

18 The United Nations Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development, *A World that Counts: Mobilising the Data Revolution for Sustainable Development*, 2014, pp. 5-6.

19 Han Chul, Byung, *Capitalism and the Death Drive* (trans. Çağlar Tanyeri), First Edition, İnka Kitap, İstanbul, 2021, p. 39.

20 Alston, Philip, *Report of the Special Rapporteur on Extreme Poverty and Human Rights*, A/74/48037, October 2019, p. 4.

21 Alston, Philip, *Report of the Special Rapporteur on Extreme Poverty and Human Rights*, p. 1.

period. Thus, analysing the impact of the onto-robotic representation devices that intensively dominate individual and public life is now a necessity.

2. Transhumanism: Onto-robotic Representation

Modern society can be characterized in a philosophical sense by a tendency to consider cognitive innovation as an improvement on the plane of reality. The tendency to consider this 'new' reality as 'better' suggests a progressive path of development leading to freedom, equality, and collective economic and social well-being. According to this idea, humans are regarded as the rulers of nature and the masters of reality via the neo-positivist glorification of science.²² The urge to transcend humanity that dominates in the context of innovative modernism can be characterized as a vague, super-deterministic motive. In fact, the desire to break away from experiential boundaries of humanity emerges as an important motif of the dominant 'habitus of representation'.²³

This ideal of transhumanism, in parallel to the urge to transcend humanity, entails a goal of producing technical and scientific solutions and developing innovative applications that can increase the intellectual abilities and physical and psychological performances of humanity. At this point, transhumanism appears as a movement that promotes the use of the most advanced scientific and technological inventions aimed at improving the physical and cognitive abilities of humans. Ultimately, this movement aims to treat diseases and aging, which are considered to be 'undesirable' problems of the human condition.²⁴ According to transhumanist Nick Bostrom of the Future of Humanity Institute of Oxford University, transhumanism is a thought movement that has gradually developed over the past twenty years with reference to secular humanism and the philosophy of enlightenment.²⁵

22 Toraldo, Marta; Toraldo, Domenico M., 'Trans-Human and Post-Human: A Challenge for the Human and Philosophical Sciences', *Open Journal of Philosophy*, Vol. 9, 2019, p. 55.

23 Toscano, Alberto, 'The Promethean Gap: Modernism, Machines, and the Obsolescence of Man', *Modernism/modernity*, Johns Hopkins University Press Vol. 23, No. 3, 2016, p. 593.

24 Toraldo, Marta; Toraldo, Domenico M., 'Trans-Human and Post-Human: A Challenge for the Human and Philosophical Sciences', p. 55-56.

25 Jotterand, Fabrice, 'Human Dignity and Transhumanism: Do Anthro-Technological Devices Have Moral Status?', *The American Journal of Bioethics*, Vol. 10, No. 7, 2010, p. 47.

Transhumanism, referencing the roots of humanism from the Enlightenment, aims to take the humanistic movement to the next level. The concept of 'trans-human' is explained in this context as going beyond humanism in terms of both meaning and purpose. While humanism aims to develop human nature on an educational and cultural basis, transhumanism aims to overcome the existential limitations imposed by the human biological and genetic heritage through science and technology.²⁶ The fundamental principles of transhumanist thought include vast access to human enhancement technologies, individuals having the right to change their own bodies as they wish (*morphological freedom*), and parents having the right to decide which reproductive technologies they might use to have a child (*reproductive freedom*).²⁷

At this point, it is relevant to address the post-human ideal, which suggests overcoming the limitations of the human condition. It is predicted that post-human beings will be liberated from disease, aging, and, in Heidegger's words, being a 'being-towards-death'.^{28 29} As the world evolves towards technological singularity, the monopoly of humans as the only advanced sentient life form on the planet supported by a series of post-human incarnations, including enhanced humans, trans-humans, robots, and cyborgs,³⁰ is under threat. This is because of the accompaniment of *Homo sapiens* by artificial digital creations conceptualized as *Robo sapiens*.³¹ The stunning impact of technology is leading to a radical transformation, overcoming not only the biological limitations of humans but also limitations on what it means to be human. As a result of such radical transformations, deep philosophical questions about what it means to be

26 More, Max, 'The Philosophy of Transhumanism', in *The Transhumanist Reader* (eds. Max More; Natasha Vita), John Wiley & Sons, 2013, p. 4.

27 Jotterand, Fabrice, 'Human Dignity and Transhumanism: Do Anthro-Technological Devices Have Moral Status?', p. 47.

28 Heidegger, Martin, *Being and Time* (trans. Kaan H. Ökten), Second Edition, Agora Kitaplığı, Istanbul, 2011, p. 250 et seq.

29 More, Max, 'The Philosophy of Transhumanism', pp. 5-6.

30 A cyborg is a cybernetic organism, a hybrid of a machine and a biological organism, a creature of social reality and fiction. Cyborgs are condensed reflections of both imagination and material reality. For detailed information see Haraway, Donna, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late 20th Century', in *The International Handbook of Virtual Learning Environments* (eds. Joel Weiss; Jason Nolan; Jeremy Hunsinger; Peter Trifonas), Springer, 2006, pp. 117-118.

31 Bloom, Peter, *Identity, Institutions and Governance in an AI World: Transhuman Relations*, Palgrave Macmillan, Switzerland, 2020, p. 218.

human are arising. Moreover, from the point of view of transhumanist thought, the 'natural' and the 'unnatural' are placed in a new plane of meaning wherein everything exhibits change and development, not only biologically but also technologically.³²

In this new plane of meaning that changes and develops technologically, it must be asked where the relationship between human dignity and post-human dignity will be situated. According to transhumanists, human and post-human dignity are compatible and complement each other. Transhumanists also think that human dignity in the modern sense does not stem from a person's pedigree or causal origin but rather from their potential to exist. According to Nick Bostrom, the concept of dignity is not dependent on belonging to the human species; rather, it is dependent on existential status and potential. In this context, Bostrom defines 'dignity' on two different planes: 'dignity as moral status' and 'dignity as the quality of being honourable'. According to Bostrom, dignity as a quality is 'a state of perfection that can apply to both the human species and for other beings'. Since this understanding of dignity is inclusive of inhuman elements, or technological and anthropo-technological tools, it is an important aspect for the transhumanist definition of human dignity. In this context, the existence of human dignity among anthropo-technological devices should be considered. In contrast to the approach that suggests that 'dignity' that defines the self-worth of an individual cannot exist among onto-robotic devices, Bostrom suggests a post-human dignity 'in and outside the human sphere'. Although he admits that 'inanimate objects cannot have human dignity', he suggests that inanimate objects 'can be endowed with some kind of dignity as a quality'.³³

There are different opinions in the literature about the transformative effects of the transhumanist ideal on the traditional understanding of human dignity. In this context, according to Bostrom, who suggests that human nature can be improved, transcending human biological nature will function to further human dignity.³⁴ However, the instrumentalization of digital technologies for the purpose of furthering human dignity eliminates the idea of biological and

32 Cordeiro, José, 'The Boundaries of the Human', *World Futures Review*, Vol. 6, No. 3, 2014, p. 231.

33 Jotterand, Fabrice, 'Human Dignity and Transhumanism: Do Anthro-Technological Devices Have Moral Status?', p. 49.

34 Jotterand, Fabrice, 'Human Dignity and Transhumanism: Do Anthro-Technological Devices Have Moral Status?', p. 47.

personal uniqueness or the 'irreplaceability' of each human being while creating the idea that some features of the human body and personality can be changed. Therefore, the concept of dignity as a characteristic specific to humans cannot be considered a quality that can be attributed to anthropo-technological tools. In fact, all human beings deserve respect because of their ontological status in the biological universe. In addition, human individuals have socially formed identities that make it possible for them to be recognized on the plane of sociality. The combination of these two degrees of dignity offers each individual the possibility of uniqueness or an 'ideographically defined identity'.³⁵ The concept of dignity necessitates an ontological and non-functional definition. Digital technological devices cannot attain the same personal identity that humans have in an existential sense and they cannot produce narratives. Identity and narratives are conceptual formations that require a humanistic 'self'. Thus, qualities that are subject to the law of change, such as limbs, intellectual faculties, or moral intuitions, are doomed to lose their value and ultimately their esteem.³⁶

After explaining the conceptual framework of transhumanism and the ideals it aims to realize, it is necessary to consider how transhumanist thought will impact legal systems. Discussions in this context focus on which developments for human genetic modification might be legally allowed, which interventions will be considered inhumane, and what legal interventions to the human body might include. Analysing how human rights can be applied in human imagination developed within the framework of transhumanistic thought and how the basic principles of law can be adapted to and transformed for the trans-human age is also important.³⁷ Indeed, the development of artificial intelligence and transhumanism raises questions about what it means to be human and who or what is considered 'human' in the context of human rights. The current human rights doctrine regards the 'human' as a privileged subject of the assurance system of human rights.³⁸

35 Jotterand, Fabrice, 'Human Dignity and Transhumanism: Do Anthro-Technological Devices Have Moral Status?', p. 50.

36 Jotterand, Fabrice, 'Human Dignity and Transhumanism: Do Anthro-Technological Devices Have Moral Status?', p. 51.

37 Bloom, Peter, *Identity, Institutions and Governance in an AI World: Transhuman Relations*, pp. 223-224.

38 Kayum, Ahmed, 'Delinking The "Human" From Human Rights: Artificial Intelligence and Transhumanism', <https://www.openglobalrights.org/delinking-the-human-from-human-rights-artificial-intelligence-and-transhumanism/>, Date of Access: 18.03.2021.

In the transhumanist human rights discourse, there is uncertainty about how and in what form the 'human', a privileged subject in the current human rights doctrine, will be positioned in terms of human rights. This raises questions about the existence and nature of 'human rights' in the transhumanist legal system.

In this context, what poses a danger in terms of legal systems based on transhumanist thought is the reproduction of legal control mechanisms and social disciplinary systems. This does not mean that there is no need to regulate protocols for the relations between humans and robotic devices. Rather, it means restructuring the law in terms of both philosophy and legal practice in order to build a strong socio-economic system. When approached from the point of view of this perspective, transhumanism is regarded as a means of creating a new type of society and a legal system that will comply with that society. This new type of society is based on the prediction of how robots and humans will cooperate in order to create a good life.³⁹

There are different predictions for the future regarding the systemic transformation of law within a social structure dominated by transhumanist thought. According to British author Richard Susskind, a futurist who has made such predictions, all legal structures will be embedded in business practices and our brains or remotely accessible chips or networks over time. Susskind further argues that humanity today has reached the final stage of the transition between a print-based industrial society and a technology-based internet society.⁴⁰

Legal mechanisms that are automated on the basis of artificial intelligence will also have a negative impact on the autonomy of the human individual. In fact, the transfer of ethical decision-making processes from the jurisdiction of 'imperfect' humans to the intelligence of 'perfect' machines poses an ever-increasing danger of limiting human autonomy. It is possible to describe this state of limitation as 'moral atrophy'. In this process, individual subjects who show full adherence to legal norms and rules may become robotic automatons who are unable to appreciate the ethical choices underlying their individual actions.⁴¹

39 Bloom, Peter, *Identity, Institutions and Governance in an AI World: Transhuman Relations*, p. 235.

40 Susskind, Richard, *Tomorrow's Lawyers: An Introduction to Your Future*, Second Edition, Oxford University Press, United Kingdom 2017, p. 192.

41 Casey, Anthony, 'Self-Driving Laws', *University of Toronto Law Journal*, Vol. 429, 2016, p. 438.

Finally, the increasing prevalence of artificial intelligence and robots and the simultaneous rise of a super-human society make it necessary to dramatically overhaul existing legal systems. However, this situation poses a unique difficulty in terms of legal philosophy and legal practice and it has created a new area of discussion. Accordingly, current technological developments are directly or indirectly transforming legal thought and the systematics of rights. The development of transhumanism in a theoretical sense and its increasing pervasion in practice both necessitate a deep analysis of the scope and application of law.⁴²

3. Judicial Action and Artificial Intelligence

In order to consider the application of artificial intelligence models to judicial decisions, it is first necessary to present a theoretical framework for judicial decision-making processes and the justifications developed by judges in this process. Indeed, judicial decision-making processes are an extremely complex and problematic area. The diversity of the judicial acts of different judicial systems shows that judicial decision-making processes are almost infinitely diverse. From the organizational structures of courts to procedural rules, and from the actual conditions of cases to the forms of the material rules, factors affecting judicial decision-making processes are immensely diverse.⁴³

From a typological point of view, the subject who is in the act of judging uses both 'foresight' and 'reasoning' in the decision-making process. Artificial intelligence systems have the ability to distinguish between the 'foresight' and 'reasoning' stages or steps of the decision-making process. However, these artificial systems are only able to realize the 'foresight' step. The fact that artificial intelligence systems can only perform 'foresight' increases the qualitative value of judicial decisions produced by human consciousness. Judicial action combines both legal references and a number of inputs other than legislation through a range of human skills and qualities such as experience, empathy, and creativity. This human act also has an ethical component of moral judgment, since it enables the evaluation of results from the point of view of citizens.⁴⁴

42 Bloom, Peter, *Identity, Institutions and Governance in an AI World: Transhuman Relations*, pp. 212-215.

43 Taruffo, Michele, 'Judicial Decisions and Artificial Intelligence', in *Judicial Applications of Artificial Intelligence* (eds. Giovanni Sartor; Karl Branting), First Edition, Springer, 1998, p. 207.

44 Bell, Felicity; Legg, Michael, 'Artificial Intelligence and The Legal Profession: Becoming The AI-Enhanced Lawyer', *University of Tasmania Law Review*, Vol. 38, No. 2, 2019, p. 37.

It can be said that 'judicial action includes not only a legal and procedural reasoning or decision-making process, but also the application of practical virtues such as justice, fairness, and freedom to specific actions and situations'.⁴⁵

There are a number of arguments that deem it possible for an application of artificial intelligence to make ethical judgments autonomously after the relevant 'inputs' are uploaded to the artificial intelligence by its designer. According to one view, if there is a 'rational' reason for programmers with different value judgments to design the algorithms they have produced within the framework of their own value judgments, it will be an ethical attitude. In contrast to this view, it is also suggested that value judgments are not always ethical; therefore, algorithms being produced on the basis of certain value judgments does not make them ethical.⁴⁶

Due to the fact that ethical value judgments in terms of judicial practice change in line with the dynamics of social transformation, there are some doubts about the functionality of this situation. New social situations that arise due to social change may require new ethical value judgments. Moreover, in some cases, new social realities may require that new value judgments be placed in the existing ethical frameworks. Therefore, due to changes in social conditions, artificial intelligence will need renewed human judgments in order to adapt to new situations. Changes in ethical values will require new human inputs of moral judgments into artificial intelligence applications as necessary. Here, it should also be stated that artificial intelligence cannot have artificial wisdom that could be considered a counterpart of the practical wisdom of humans. Thus, the need for wisdom, which includes ethical judgment, has the function of preserving the ontological position of human consciousness in judicial decision-making processes.⁴⁷

45 Satici, Murat, 'Adalet, Yasallık ve Demokrasi Uğraklarında Yargı Meselesi', *Yargıya Felsefeyle Bakmak* (eds. Kurtul Gülenç; Özlem Duva), First Edition, Yapı Kredi Yayınları, İstanbul, 2016, p. 215.

46 Iphofen, Ron; Kritikos, Mihalis, 'Regulating Artificial Intelligence and Robotics: Ethics By Design in a Digital Society', *Contemporary Social Science*, 2019, p. 7.

47 Davis, Joshua P., 'Artificial Wisdom? A Potential Limit on AI in Law (and Elsewhere)', *Oklahoma Law Review*, Vol. 72, No. 1, 2019, p. 67.

Even if the difficulties of programming an artificial intelligence application that has a set of values and ethical guidelines that represent the will of the democratic majority of society can be overcome, doubts about the judicial ability and wisdom of that artificial intelligence to do the right thing will still remain. In other words, the possibility of programming 'practical wisdom' into an algorithmic device that has no emotions and does not have any experience to provide a basis for decisions will continue to be questioned.⁴⁸ As such, according to Aristotle, *phronesis*, as one of the cardinal ethical virtues, is what makes carrying out judicial acts on the basis of 'practical wisdom' possible.⁴⁹ At this point, it can be said that wisdom is not just a matter of having the analytical skills to handle a new situation. Practical wisdom, or *phronesis*,⁵⁰ requires the subject to have had a series of experiences that will guide that subject's decisions. In this context, it is important to analyse the ways in which an artificial intelligence application may experience a judicial act through an algorithmic program.⁵¹

In relevance to this situation, American legal scholar Eugene Volokh proposes a 'legal Turing test' to evaluate the validity of the decisions made by an 'artificial intelligence judge' in terms of judicial decision-making processes. According to Volokh, the most important point that validates a judicial act is the 'convincing' nature of the algorithmic output. If the decision mechanism of an artificial intelligence application can produce judicial decisions with a sufficient level of competence, it is intelligent enough to become a good artificial intelligence judge. Furthermore, Volokh argues, if an artificial intelligence system can make decisions reliably and competently, the direct acceptance of those decisions is necessary, since questioning how these decisions were made is meaningless.⁵²

Despite all these considerations, the mechanical application of judicial decision mechanisms by artificial intelligence systems creates a general concern regarding

48 Braga, Adriana; Logan, Robert K., 'The Emperor of Strong AI Has No Clothes: Limits to Artificial Intelligence', *Information*, Vol. 8, 2017, p. 18.

49 Aristotle, *Nicomachean Ethics* (trans. Saffet Babür), Second Edition, BilgeSu Yayıncılık, İstanbul, 2009, p. 117-118.

50 Michelin, Claudio, 'Practical Wisdom in Legal Decision-Making', Edinburgh School of Law Working Paper Series, 2010, p. 12.

51 Braga, Adriana; Logan, Robert K., 'The Emperor of Strong AI Has No Clothes: Limits to Artificial Intelligence', p. 18.

52 Markou, Christopher; Deakin, Simon, 'Is Law Computable? From Rule of Law to Legal Singularity', p. 5.

the realization of fundamental values such as human rights, freedom, equality, and democracy. Indeed, the possibility of a computer judge having these values requires a higher level of competence in machine learning in the long run. However, Volokh suggests that what is important in such situations is not the process but the result. According to him, in the event that an artificial intelligence judge is able to make fairer decisions, the presence of certain virtues such as wisdom, fairness, and compassion will lose significance. It is considered sufficient for an artificial intelligence judge to be able to make decisions that 'satisfy the public conscience'.⁵³

This approach, which reduces judicial action and the judicial profession to a mechanical line of work, is impossible to agree with. This is because it is impossible to represent or substitute the virtues of justice, fairness, and wisdom, which constitute the fundamental values of judicial action, through the mechanical language of robotic technology. The ineptness of the naive expectation of the establishment of material 'justice' through the given mechanical memory and language of algorithmic judges is clear when the constituent values or virtues of judicial action oriented towards the idea of justice are taken into account. The multidimensional semantic content of judicial virtues, which constitute the material element of the movement of judicial action towards the ideal of justice, provides us with a relevant explanatory framework.

These judicial virtues can be explained with three basic actual values: judicial intelligence, judicial integrity, and judicial wisdom. Judicial intelligence, the first of these virtues that guide judicial action, requires competence in understanding and theorizing the law. The principle of judicial integrity, the second basic virtue, requires loyalty to the rule of law and personal concern about the consistency of law from the subject of the judicial act (i.e. the good judge). According to the principle of judicial wisdom, the third basic virtue, a 'good judge' must have practical wisdom in order to be able to choose the purposes and appropriate means of law.⁵⁴

The nature of judicial decisions necessitates complexity, variability, and the power of discretion, thus making it difficult to apply legal reasoning within the framework of purely logical rules or via artificial intelligence models. In fact, it is seen that attempts at formalizing legal reasoning or computerizing a judge's

53 Volokh, Eugene, 'Chief Justice Robots', *Duke Law Journal*, Vol. 68, 2019, p. 1189.

54 Solum, Lawrence B., 'The Virtues and Vices of a Judge: An Aristotelian Guide to Judicial Selection', *Southern California Law Review*, Vol. 61, 1988, p. 1140.

reasoning fail to interpret the complex nature of judicial decision-making processes and cannot produce reasoning models of a judge. The decision-making procedure is too complex, variable, vague, hazy, and value-laden to be reduced to a logical model.⁵⁵

In this context, the fact that judges have discretionary power is one of the biggest challenges in the design of artificial intelligence-based decision mechanisms.⁵⁶ Here, situations in which discretionary power⁵⁷ is used should be considered. This is because attempts at rationalizing the discretionary decisions of courts raise several important problems. In addition, a distinction must be made between 'strong discretion' and 'weak discretion' because, especially in 'hard cases', judges make their own decisions, drawing from a theoretically unlimited range of alternatives and taking into account only the specific qualities of the individual case. Strong discretion is possible only if the judge performing the judicial act is completely free and autonomous. On the other hand, if the judge is relatively free to make decisions autonomously, weak discretion is in play.⁵⁸ Thus, if contradictory theoretical approaches are left out of the discussion, attempts to automate judicial decision-making processes inevitably have to take into account 'discretionary power', which is accepted as a requirement of the specific nature of legal reasoning.⁵⁹

The conflicting theoretical approaches to 'discretionary power' that were mentioned have emerged in the Hart-Dworkin dialectic, which has served as grounds for an interesting discussion on legal practice. In discrepancies that are named 'penumbral cases' by Hart and 'hard cases' by Dworkin where the judge could not devise a solution within existing legal rules, Hart foresaw the use of 'discretionary power' throughout the judicial process.

55 Taruffo, Michele, 'Judicial Decisions and Artificial Intelligence', p. 216.

56 Leith, Philip, 'The Judge and the Computer: How Best 'Decision Support'?', in *Judicial Applications of Artificial Intelligence* (eds. Giovanni Sartor; Karl Branting), First Edition, Springer, 1998, p. 191.

57 For a discussion of the use of discretion in the judicial process, see Dworkin, Ronald, *Taking Rights Seriously*, Harvard University Press, 1977; Hart, H.L.A., *The Concept of Law* (eds. Penelope A. Bulloch; Joseph Raz), Second Edition, Oxford University Press, 1994, p. 272.

58 Taruffo, Michele, 'Judicial Decisions and Artificial Intelligence', p. 216.

59 Leith, Philip, 'The Judge and the Computer: How Best 'Decision Support'?', p. 191.

Hart argued that in such cases, the judge could use their 'discretionary power' to go beyond set rules.⁶⁰ According to Hart, the 'open texture' of rules adds up to the area of judicial action that was created in order for courts to develop the 'competing interests' of parties while keeping them in balance in relevant cases. In every legal system, a great reach of judgement is left to the discretion of the courts on issues such as 'elucidating unclear standards, eliminating ambiguities in laws, and developing rules related to binding case law'.⁶¹

In contrast, according to Dworkin, law systemically does not consist of a mere set of rules, thus does not require 'discretionary power'. According to him, legal practice constitutes a systemic totality in which principles perform an interpretative function as much as rules. At this point, principles also function as the 'basis, source of legitimacy and justification' of the rules of law. For this reason, if the judge deems legal rules to be applied to the relevant discrepancies inadequate, especially in 'hard cases', the judge is obligated to apply the law in accordance with the principles of law.⁶²

However, it is not possible for robotic devices with artificial consciousness to substitute for human discretion that requires human affective skills in particular, as well as cognitive abilities. In fact, the replication of the decisions of judges, which they shape in line with the ideals of justice and practical wisdom, and their accumulated professional experience through purely formalized mechanical reasoning does not seem possible. If law is considered from a theoretical point of view, it cannot be suggested that the discretionary power applied to fill the 'legal gaps' is purely a product of consciousness because, in the process of legal reasoning, other human abilities such as conscience and intuition are used in tandem with consciousness.

At this point, it is especially necessary to draw attention to the field of criminal justice, which may lead to interventions that restrict the fundamental rights and freedoms of individuals. It is predicted that artificial consciousness undertaking judicial action in the field of criminal procedures will have some negative effects, and especially on human rights. Indeed, the complex nature of artificial intelligence

60 Türkbağ, Ahmet Ulvi, "Hart-Dworkin Tartışmasının Ana Hatları", *Hukuk Felsefesi ve Sosyolojisi Arkivi*, (ed. Hayrettin Ökçesiz), 2007, sy. 16, s. 325.

61 Hart, H. L. A., *The Concept of Law*, p. 132, 136.

62 Türkbağ, Ahmet Ulvi, "Hart-Dworkin Tartışmasının Ana Hatları", s. 325.

systems that produce algorithmic decisions entails the potential for violating the 'right to a fair trial', including the 'principle of equality of arms' held by the parties of a trial.⁶³ In addition, the complex nature of these systems constitutes a major obstacle for the transparency of the decision-making mechanism. Moreover, due to the opaque nature of algorithmic decision-making processes, the data selection processes required for data collection, modelling, or profiling and the systemic errors that may arise cannot usually be reported transparently. This poses serious difficulties, particularly in terms of judicial decision-making processes.⁶⁴

Another challenge is that artificial intelligence judges, which are predicted to replace human judges in the future, may lead to a regulatory gap of obsolescence as they cannot create new legal precedents at the same pace at which social change occurs. The inability of artificial intelligence judges to produce precedent decisions will inevitably make the legal doctrine dysfunctional. In addition, the substitution of judges with onto-robotic representation devices will lead to the loss of the legal system's ability to keep itself up-to-date. This loss of competence will lead to dangerous situations within the general legal system. Artificial intelligence programs serving as substitute judges will prevent the systemic development of law by 'stabilizing' legal interpretations and 'freezing' the legal doctrine. Although artificial intelligence judges of the future may have the capacity to settle complex cases, it is unlikely that the decisions they make will be able to create new paradigms in legal doctrine or that the relevant decisions can serve as bases for legal doctrine.⁶⁵ This becomes more obvious when the conceptual specificities of the current legal systems in the world and their current organizational structures are taken into account. Precedent laws, which serve as constructive sources of law in countries with legal systems of common law, are especially interesting examples here. Considering all these systemic specificities, the value and/or position of judicial decisions produced by artificial consciousness in terms of legal doctrines remains questionable.

63 Leslie, David; Burr, Christopher; Aitken, Mhairi; et al. 'Artificial Intelligence, Human Rights, Democracy, and the Rule of Law: A Primer', Council of Europe, 2021, p. 15.

64 European Union Agency for Fundamental Rights, 'Getting The Future Right – Artificial Intelligence and Fundamental Rights', Office of the European Union, Luxembourg, 2020, p. 68.

65 Gutierrez, Carlos Ignacio, *The Unforeseen Consequences of Artificial Intelligence (AI) on Society: A Systematic Review of Regulatory Gaps Generated by AI in the U.S.*, RAND Corporation, Dissertation, 2020, p. 121.

Lastly, it can be said that modelling the legal reasoning of judges with a computer program is as impossible as modelling any positive legal system. Legal reasoning is based on the assessment and interpretation of the factual realities of any case and the rules of law applicable to said case. For this reason, artificial intelligence-based decision-making mechanisms cannot substitute for holistic legal reasoning processes, which are multidimensional, cannot be defined *a priori*, and are sometimes based on the discretionary power of the judge.⁶⁶ Mechanical consciousness based on artificial intelligence, developed with the claim of substituting human cognitive and behavioural abilities, will not be able to realize the movement of judicial acts, which are essentially hermeneutic activities, towards the ideal of justice on a material basis and will not reach the capacity to produce the value of justice.

4. Structured Conscience: Algorithmic Artificial Conscience

The term 'conscience' is a concept that has had different semantic meanings in different civilizations and cultural settings throughout history. Looking past the semantic and descriptive differences, 'conscience' can be defined as 'an individual's judgment on what is morally right or wrong'.⁶⁷ It can also be defined as a force that leads people to make judgments about their own behaviours and enables them to make direct and spontaneous judgments regarding the ethical values that a person has. In some philosophical studies, the concept of conscience has been defined as 'the ability of people to judge themselves through their manners and knowledge'. According to a definition based on the etymological origin of the word, 'conscience' does not indicate divine intuition but rather a state of consciousness.⁶⁸

'Conscience' comes from Latin, meaning 'joint' (*con*) 'knowledge' (*scienceia*). From this perspective, the term *conscientia* is used in the sense of 'communal

66 European Commission for the Efficiency of Justice (CEPEJ), European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and Their Environment, Strasbourg, 3-4 December 2018, p. 36.

67 Churchland, Patricia S., *Conscience: The Origins of Moral Intuition*, p. 9. For further detailed information about defining the concept of conscience in a philosophical context., Shytov, Alexander Nikolaevich, *Conscience and Love in Making Judicial Decisions* (eds. Francisco J. Laporta; Aleksander Peczenik; Frederick Schauer), Springer Science, 2001.

68 Feyzioğlu, Metin, *Ceza Muhakemesinde İspatın Ölçütü Olarak Vicdani Kanaat*, Isık Yayınları, İstanbul, 2015, p. 162.

information of standards'.⁶⁹ In this context, from a typological point of view, conscience reflects a number of social standards of the group to which an individual feels connected or belongs. Therefore, it is unlikely that conscience-based decision-making can be explained by cognitive processes alone. Fundamentally, conscience contains two related elements, namely the 'feelings that push a person in a certain direction and judgment that shapes these feelings and impulses towards a certain action'.⁷⁰

Considering their etymological origins, it can be said that 'conscience' and 'consciousness' bear traces of each other. In fact, both concepts are derived from a word of Latin origin, *conscio*.⁷¹ Consciousness plays a particularly important role in the mind-body dichotomy and debates about 'strong artificial intelligence' and 'weak artificial intelligence'.⁷² Within the neuro-physiological structure of human beings, intelligence and consciousness, which contain conscience, perform their cognitive functions in an interconnected relationship. Because of this interconnected relationship between intelligence and consciousness, our existential purposes and our world of values guiding our actions are governed by our conscience. In today's artificial intelligence technology, however, intelligence and consciousness can only be constructed separately from each other. It remains unclear how these two human abilities can be programmed in an interrelated structure in artificial intelligence systems. The question of whether artificial intelligence systems can have this capability raises a number of ethical and juridical questions.⁷³

There are various questions about the creation of artificial consciousness and the possibility of programming such created consciousness into a machine. These questions are mainly based on discussions of whether consciousness is a 'phenomenon' or, in other words, whether consciousness can exist only for sentient beings such as humans and animals who are able to experience emotions

69 Churchland, Patricia S., *Conscience: The Origins of Moral Intuition*, W. W. Norton & Company, London & New York, 2019, p. 8.

70 Churchland, Patricia S., *Conscience: The Origins of Moral Intuition*, p. 9.

71 [https://www.wordsense.eu/conscire/#:~:text=%22know%22\).-,Verb,%20know%20well](https://www.wordsense.eu/conscire/#:~:text=%22know%22).-,Verb,%20know%20well), Date of Access: 04.04.2021.

72 Hildt, Elisabeth, 'Artificial Intelligence: Does Consciousness Matter?', *Frontiers in Psychology*, 2019, p. 1.

73 Wah, Ng Gee; Chi, Leung Wang, 'Strong Artificial Intelligence and Consciousness', *Journal of Artificial Intelligence and Consciousness*, Vol. 7, No. 1, 2020, p. 70.

such as love, joy, or pain.⁷⁴ It is clear that human consciousness includes not only intelligence but also human emotions such as love, fear, and enthusiasm. At this point, even if it is predicted that intelligence can be digitized, it will not be possible to digitalize emotions or upload them to an artificial mind.⁷⁵

There are a number of areas of fundamental existential problems in questioning the existence of artificial consciousness. At the heart of these difficult and fundamental questions about the nature of consciousness is the problem of existentialism. In this context, a singular human's conscious awareness is shaped by self-experience. Human consciousness is thus an experience of self-awareness from a first-person singular perspective. On the other hand, artificial consciousness is a quality that can only be defined and grasped by humans from a third-person singular perspective. Thus, the fact that humans can define this quality only externally with a third-person singular perspective raises questions about the existence of machine consciousness.⁷⁶

Ned Block's (1942-) distinction between 'phenomenal consciousness' and 'access consciousness' has played an important role in discussions of the existence of artificial consciousness. Of these consciousness forms, phenomenal consciousness corresponds to the experiential aspect of consciousness. In access consciousness, on the other hand, the determining factor of 'consciousness' is whether the knowledge of the relevant experience is generally accessible by the being that formed the experience. As seen in reasoning and guiding behaviours, 'access consciousness' relates to the ability of a single entity to use a mental state.⁷⁷

In this context, various experimental studies have been carried out in order to conduct evaluations of the consciousness of robotic intelligence throughout recent history. The original Turing test⁷⁸ proved that an intelligent machine is a

74 Meissne, Gunter, 'Artificial Intelligence: Consciousness and Conscience', *AI & Society*, Vol. 35, 2020, p. 230.

75 Rohde, Klaus, 'Intelligence and Consciousness: Artificial Intelligence and Conscious Robots, Soul and Immortality', <https://krohde.wordpress.com/2016/04/10/intelligence-and-consciousness-artificial-intelligence-and-conscious-robots-soul-and-immortality/>, Date of Access: 3.04.2021.

76 Hildt, Elisabeth, 'Artificial Intelligence: Does Consciousness Matter?', p. 3.

77 Hildt, Elisabeth, 'Artificial Intelligence: Does Consciousness Matter?', p. 1.

78 For more detailed information, Turing, Alan Mathison, "Can Digital Computers Think?" *The Essential Turing Seminal Writings in Computing, Logic, Philosophy, Artificial Intelligence, and Artificial Life: Plus The Secrets of Enigma*, (ed. B. Jack Copeland), Oxford: Clarendon, 2004, p. 482-486.

machine that can 'fool' humans and convince them that the machine itself indeed is 'human'.⁷⁹ John R. Searle denied the existence of artificial consciousness with his 'Chinese room' analogy, whereby he suggested that a computer could translate English to Chinese flawlessly if the right algorithms were developed.⁸⁰ In line with this prediction, he concluded that the computer would not actually understand the meaning of the words it translated but would instead simulate translation without understanding the content. Searle argued that 'thought' is impossible without the act of understanding; therefore, a mind or consciousness cannot exist in an algorithmic system.⁸¹

Regarding these discussions about consciousness, futurist thinker Ray Kurzweil (1948-) suggests that it is not appropriate to consider the problem of consciousness as a purely philosophical issue. According to Kurzweil, the issue of consciousness is the essence of the legal and moral basis of the social structure, and the point of view on the issue of consciousness will change to such an extent that a machine that does not have biological intelligence can convincingly defend the existence of its emotions. According to him, in the future, humanity will have to accept that inorganic beings also have consciousness. This is because non-biological beings in the future will be able to encompass all characteristics associated with emotional and other subjective experiences that humans have today.⁸²

However, decision-making processes based on wisdom require actions to be guided through conscious self-awareness. The current discussions about robotic expectations are aimed at understanding exactly how robots think, what they think, how they behave autonomously, and their relationships with humans. In order to 'think like a human being', it is necessary to go beyond what built-in machine logic is capable of. To reach such competence, robots need intuitive capacity, creativity, and the ability to imagine and act according to resulting imaginations.⁸³

79 Iphofen, Ron; Kritikos, Mihalis, 'Regulating Artificial Intelligence and Robotics: Ethics By Design in a Digital Society', p. 2.

80 For details of this thought experiment by Searle see., Searl, John R., *Minds, Brains and Science*, Harvard University Press, New York 2003.

81 Meissne, Gunter, 'Artificial Intelligence: Consciousness and Conscience', p. 231.

82 Kurzweil, Ray, *İnsanlık 2.0* (trans. Mine Şengel), Fifth Edition, Alfa Yayıncılık, İstanbul 2020, pp. 556, 564.

83 Iphofen, Ron; Kritikos, Mihalis, 'Regulating Artificial Intelligence and Robotics: Ethics By Design in a Digital Society', p. 2.

It is predicted that in the future, robots will be able to establish emotional relationships with humans, and their ability to think and make ethical decisions may be judged as right or wrong, similarly to human behaviour. However, the technical difficulty of this is related to the realization of self-awareness in autonomous learning machines. This is because people's self-awareness is an inherent part of their awareness of the fact that they are organic beings with certain anatomical and physiological characteristics. Humans, as embodied beings, are biological 'creations' from birth. On the other hand, robots, although they may have a level of awareness similar to that of humans, may perceive that they were 'created', but they were 'mechanized' in an inorganic sense.⁸⁴

The capacity of self-awareness is a fundamental requirement of consciousness. Consciousness without conscience may be a dangerous factor at both actual and behavioural levels. This is because conscience acts as a 'braking' mechanism for malevolent human actions and behaviours that are hazardous. Conscience also functions as a preventive mechanism that condemns people to feelings of guilt if they commit wrong actions. It is said that there is a possibility for autonomous learning machines to learn to be 'better' machines in a moral sense. However, in order to eliminate the 'psychopathic' quality of the decision-making processes of autonomous learning machines, it is necessary to include the element of conscience in the algorithmic systems of these devices. The reflective conscience of a 'learning' machine can enable the machine to develop an ethical guide for its future actions through learning processes that will work over the 'good' and 'bad' judgments of robotic actions. However, it seems unlikely that machines with algorithmic artificial consciences will be able to make ethical choices on their own. The complex nature of human conscience makes it impossible to embed an 'algorithmic artificial conscience' in the ethical designs of autonomous machines. Therefore, it is expected that comprehending the complex nature of the human conscience will serve an important function in structuring these artificial and mechanical ethical designs.⁸⁵

Before designing autonomous learning machines on an ethical basis, it is necessary to develop a clearer understanding of how human moral decision-

84 Iphofen, Ron; Kritikos, Mihalis, 'Regulating Artificial Intelligence and Robotics: Ethics By Design in a Digital Society', p. 12.

85 Iphofen, Ron; Kritikos, Mihalis, 'Regulating Artificial Intelligence and Robotics: Ethics By Design in a Digital Society', p. 12.

making processes work. At this point, the principle of 'utilitarianism', which is the fundamental ethical value of 'consequentialism', the most basic moral algorithm deemed valid by humans, should be considered. Bentham⁸⁶ proposed a calculation model that he called 'moral arithmetic', which is compatible with robotic logic and aims to maximize happiness.⁸⁷ However, the ethical decision-making processes of singular individuals that they apply in their practices of life are complex and ambiguous.⁸⁸

Ultimately, there are ongoing questions about whether the ability of 'conscience' can be applied to artificial intelligence-based decision-making systems intended to be built as onto-robotic representation devices with human ethical values. These questions lead to discussions about the existence of an algorithmic artificial conscience. In terms of future projections, the problems of artificial intelligence and conscience will persist as a critical discussion topic.⁸⁹ All these discussions about the existence and potential of algorithmic artificial conscience are based on the human conception of transhumanistic philosophy. Discussions about the existence and competence of artificial conscience are being conducted from a materialistic perspective that does not take into account the ontological plane of human existence. Through these discussions, comparing and directly correlating the developmental capacities of robotic devices and existential human capacities is generating ontological mental confusion. Within the framework of this mental confusion, it is suggested that conscience, which is a human-specific behavioural or cognitive ability, can be integrated into the designs of artificial machines. Although machine learning and artificial intelligence systems exhibit a dynamic of ever-increasing advancement due to the development of digital technology, it is unlikely that conscience, which is unique to the human 'self', could be integrated into these algorithmic systems. This is because all individual human beings live

86 Bentham, Jeremy, *An Introduction to the Principles of Morals and Legislation*, Batoche Books, Kitchener, 2000.

87 For detailed information about moral arithmetic see., Baujard, Antoinette, 'A Return to Bentham's Felicific Calculus: From Moral Welfarism to Technical Non-welfarism', *The European Journal of the History of Economic Thought*, Vol. 16, No. 3, 2009.

88 Iphofen, Ron; Kritikos, Mihalis, 'Regulating Artificial Intelligence and Robotics: Ethics By Design in a Digital Society', p. 6.

89 Dickson, Ben, 'Will Artificial Intelligence Have A Conscience?', 2020, <https://bdtechtalks.com/2020/09/28/ai-conscience-patricia-churchland/>, Date of Access: 13.03.2021.

their lives in a universe of possibilities, in an existential sense, and are the only beings who have endless ontic wealth and diversity in realizing themselves.

5. Legal Singularity: The Design of a New Legal Order

The development of artificial intelligence technology through machine learning and deep learning techniques can be considered an important step towards the transhumanist age. All these developments also satisfy the motto of 'technological progress', which modern human history idealizes.⁹⁰ The creation of machines with cognitive skills that exceed human abilities, in parallel with this process of technological progress, is conceptualized as technological singularity. In a narrow sense, technological singularity enables the recursive self-improvement of artificial intelligence. However, this conceptualization is iterated in various ways, such as the messiah of a world powered by super machines or as semi-religious visions.⁹¹ 'Singularity', as per Kurzweil's *The Singularity Is Near*, is defined as a future scenario in which the speed of technological transformation leads to fundamental changes and transformations in human life in areas ranging from sexuality to spirituality.⁹²

To consider the concept of singularity from a broader perspective, it would be appropriate to take a look at the origin of this concept. As a word, 'singularity' means 'a situation that leads to unique, particular results'.⁹³ There is no consensus on the conceptualization of 'technological singularity' in the philosophical literature yet, but there is a consensus on the point that technological singularity involves relieving humans of their roles as the main producers of information.⁹⁴

90 Kılıç, Muharrem, 'Ethico-Juridical Dimension of Artificial Intelligence Application in the Fight Against Covid-19 Pandemics'.

91 Armstrong, Stuart, 'Introduction to the Technological Singularity', in *Technological Singularity: Managing the Journey* (eds. Victor Callaghan; James Miller; Roman Yampolskiy; Stuart Armstrong), Springer-Verlag GmbH, Germany, 2017, p. 1.

92 Kurzweil, Ray, *The Singularity Is Near: When Humans Transcend Biology*, Viking, 2005, p. 20.

93 Kurzweil, Ray, *Humanity 2.0*, p. 41.

94 Durán, Juan M., 'Computer Simulations as a Technological Singularity in the Empirical Sciences', *The Technological Singularity: Managing the Journey* (eds. Victor Callaghan; James Miller; Roman Yampolskiy; Stuart Armstrong), Springer-Verlag GmbH, Germany, 2017, p. 167.

As argued in the literature, technological singularity is developing in the digital universe across the three revolutionary phases of genetic science, nanotechnology, and robotics science, or GNR. It is suggested that among these three basic revolutionary phases that create singularity, robotics, which includes the creation of non-biological intelligence that can transcend beyond human intelligence, will have the most intense impact. In this context, it is envisioned that machines will be able to evaluate, understand, and synthesize all 'human-machine' information as the transfer of human information to networks accelerates. According to Kurzweil, intertwining GNR revolutions will upgrade the flimsy version 1.0 of the human body to a much more durable and capable 2.0 version.⁹⁵ Therefore, it is predicted that the ideal of singularity will enable humankind to overcome its physical and cognitive limitations. It is also suggested that in the post-singularity period, there will be no distinction between 'human and machine' or 'biological and artificial'.⁹⁶

One of the transformative domains of the digital universe, which is evolving towards technological singularity, is the legal sector, which covers the entire legal field from the systematic functioning of the law to processes of judicial action. Indeed, according to some legal futurists, predictive legal analytics will soon result in 'legal singularity'. It is predicted that a legal system based on this 'legal singularity' will eliminate the 'legal indeterminacy'⁹⁷ problem. Legal systems that have reached legal singularity are deemed to constitute an 'uninterrupted legal order with completely specific rules that is accessible to everyone in real time'.⁹⁸

At this point, it is apparent that the ideal of a 'legal singularity' seems to have been inspired by the idea of a technological singularity, popularized by the futurist author Kurzweil. However, the concept has some divergences from technological singularity. 'Technological singularity' refers to a stage in which machines become increasingly capable and powerful devices up to the point of an 'intelligence explosion' that allows machines to transcend human understanding or control

95 Kurzweil, Ray, *Humanity 2.0*, p. 448.

96 Kurzweil, Ray, *Humanity 2.0*, pp. 19, 23, 54.

97 For detailed information see., Uygur, Gülriz, "Hukuki Belirsizlik Sorunu Üzerine", Ankara Üniversitesi Hukuk Fakültesi Dergisi, c. 51, sy. 2, 2002; Atalay, Ahmet Haluk, "Kelsen ve Hart: Bilinebilir Hukuk", *Hukuk Felsefesi ve Sosyolojisi Arkivi*, (ed. Hayrettin Ökçesiz; Gülriz Uygur), İstanbul Barosu Yayınları, 2010.

98 Weber, Robert F., 'Will the 'Legal Singularity' Hollow Out Law's Normative Core?', *Michigan Technology Law Review*, Vol. 27, No. 97, 2021, p. 99.

capacity. 'Legal singularity', on the other hand, is an ideal intended to eliminate 'legal indeterminacy' and develop an uninterrupted legal system that can be accessed in real time at a universal level.⁹⁹

These technological developments aimed at reaching the singularity of super artificial intelligence restarted a discussion of the theoretical prediction of Ronald Dworkin (1931-2013) regarding the philosophy of law, which suggests that there is absolutely only one 'correct answer' for each case.¹⁰⁰ This understanding of singularity in terms of legal systems leads to the potential of transforming Dworkin's thesis from a mythical dream to a digital one. If the correctness of the theoretical approach put forward by Dworkin is accepted, Judge Hercules would have the power to give the 'single correct answer' to each legal problem. Thus, Dworkin's provocative theory that 'there is only one correct answer for each legal question' would be realized. Before the spread of internet technology and the emergence of the belief in technological singularity, Dworkin suggested the 'seamless web' thesis, which theoretically could provide a single 'correct answer' to each legal problem.¹⁰¹ Within the framework of this thesis, Dworkin tried to transform legal reasoning into a 'seamless' and holistic format, with all its principles as well as its rules. In accordance with his theoretical approach, law takes the form of an uninterrupted and integrated network, which consists of legislation, precedent decisions, principles, and legal doctrine, which are theoretically compatible with each other.¹⁰²

The idea of 'legal singularity', based on the prediction that the legal system will take the form of an uninterrupted and integrated network, requires a world in which all legal processes and results are perfectly predictable. In this world, the law itself would be able to be transformed into a large catalogue of real-time and fully adapted laws or regulations. The first concrete step towards the realization of the ideal of legal singularity, which is still ongoing, involves the conversion of legal information into digital media. The next step for legal singularity is the dissemination of this legal information, making it accessible everywhere in real

99 Alarie, Benjamin, 'The Path of the Law: Toward Legal Singularity', *Political Science*, 2016, p. 3.

100 Dworkin, Ronald, *Taking Rights Seriously*, Harvard University Press, 1977, p. 81.

101 Dworkin, Ronald, *Taking Rights Seriously*, p. 115.

102 Goldsworthy, Daniel, 'Dworkin's Dream: Towards a Singularity of Law', *Alternative Law Journal*, Vol. 44, No. 4, 2019, p. 5.

time. The application of artificial intelligence technologies in legal research is the third step of this ideal. The fourth step, which is expected to take place in the future, includes a comprehensive revision of laws after artificial intelligence applications are in place. After all these processes, the legal system would be able to reach legal singularity, which would entail its transformation into a self-referential system that can produce its own answers to all legal problems.¹⁰³

The research of Canadian legal expert Benjamin Alarie from the Vector Institute for Artificial Intelligence can be considered a cornerstone regarding the content of this conceptualization of legal singularity. Within the framework of the ideal of 'legal singularity', a number of discursive predictions such as 'completed law, perfect legal order, self-executing legal system, a fully determined legal structure and a functionally complete legal order' emerge.¹⁰⁴ In line with these discursive predictions, some legal futurists argue that predictive analytical systems will make the 'legal singularity' ideal functional and digital judges will be authorized to implement fully defined statutes, rules, regulations, and contracts.¹⁰⁵

In this context, it is envisioned that the mathematical or logical inference methods used in the development of artificial intelligence systems can produce an analogue of legal reasoning through their algorithmic systems. However, this artificial inference methodology does not have the ability to take into account the political, economic, and socio-cultural factors affecting the current legal discourse and the systemic evolution of law.¹⁰⁶ If artificial intelligence judges utilizing algorithms based on mathematical logic, as envisaged by legal singularity, cannot grasp the situation-specific understanding of legal reasoning and the complexity of the social world, it will lead to the embodiment of a particular legal view. The resulting legal judgments will be deterministic outputs produced on the basis of static or deterministic legal rules. This particularly overlooks the idea that law is a social institution that includes socially constructed activities and norms, which cannot be converted into numerical data. In addition, this ignores the fact that judicial decision-making processes involve an exercise of power that is both

103 Mulder, Wim De, 'The Legal Singularity', <https://www.law.kuleuven.be/citip/blog/the-legal-singularity/>, Date of Access: 11.03.2021.

104 Eliot, Lance B., 'Multidimensionality of Legal Singularity: Parametric Analysis and the Autonomous Levels of AI Legal Reasoning', ArXiv, 2020, p. 6.

105 Weber, Robert F., 'Will the 'Legal Singularity' Hollow Out Law's Normative Core?', p. 99.

106 Markou, Christopher; Deakin, Simon, 'Is Law Computable? From Rule of Law to Legal Singularity', p. 6.

material and, as the famous French sociologist Pierre Bourdieu (1930-2002) defined, 'symbolic.'^{107 108}

The ideal of legal singularity is characterized by a world in which legal data belonging to the legal system are captured in an algorithmic software system that predicts the way the data will be applied for any event and is constantly updated. It should also be considered how the principle of the rule of law will function in this new legal system that foresees 'the possibility to predict definitively how the law will be applied to all persons in any situation' with the realization of this ideal.¹⁰⁹ In fact, techno-futuristic projects developed in order to eliminate 'legal indeterminacy' and build a fully defined legal system are perceived as threats to the principle of the universality of law. At this point, the importance of the principle of the rule of law in a futuristic legal system needs to be reconsidered. The first issue regarding the principle of the rule of law is related to the possibility of software that realizes legal singularity institutionalizing and algorithmically reproducing the existing inequalities in the current legal system while educating itself on how the legal system works. Another consideration regarding this principle is related to the potential for the idea of fundamental universal rights in an algorithm-based legal system becoming incomprehensible and ambiguous in the face of epistemological change.¹¹⁰

From the point of view of traditional legal systems, the principle of the rule of law has emerged as a historical necessity that functions as a control mechanism against the managerial and discretionary arbitrariness of adjudicating actors. At first glance, legal singularity may seem to completely eliminate the problem of the arbitrary use of discretion. In this regard, the futuristic approach to the problem of discretion envisions that the law will perform an algorithmic function in isolation from human elements. However, this ultimately leads to a potential problem of 'algcocracy', in which algorithm-based systems restrict human participation in public decision-making processes.¹¹¹

107 Bourdieu, Pierre, *Language and Symbolic Power* (trans. Gino Raymond; Matthew Adamson), Polity Press, Cambridge, 1991.

108 Markou, Christopher; Deakin, Simon, 'Is Law Computable? From Rule of Law to Legal Singularity', p. 6.

109 Weber, Robert F., 'Will the 'Legal Singularity' Hollow Out Law's Normative Core?', p. 100.

110 Weber, Robert F., 'Will the 'Legal Singularity' Hollow Out Law's Normative Core?', p. 103.

111 Weber, Robert F., 'Will the 'Legal Singularity' Hollow Out Law's Normative Core?', p. 103.

Similarly, legal expert John Danaher argues that the combination of legal and political structures with algorithmic systems would create a 'threat of algocracy'.¹¹²

Regarding this point, we can say that determined, automated, rule-based, and predictable systems that do not include discretionary power are widely present in modern societies. However, these systems are not defined as legal systems due to the fact that they do not contain the normative foundations that modern liberal legal systems have. The normative foundations that characterize liberal legal systems have a number of qualities that are contained in the principle of the rule of law. In fact, the fundamentals of the liberal theory envisaged by John Locke (1632-1704) and Jean-Jacques Rousseau (1712-1778) are found in the historical background of this belief in the principle of the rule of law. Fundamentally, this principle derives from the principles of predictability and universality. However, the ideal of legal singularity poses a danger that may weaken the principles in question. The ideal of legal singularity does not regard the subjects of rights included in the legal system as actual individuals; it designates them as 'data points' of the algorithmic system. As a result, the algorithmic design in question may systematically lead to a dilution of the universality of the principle of law.¹¹³

One of the main organic functions of modern legal systems based on the principle of the rule of law is creating a predictable practice of law. The main function of modern legal systems is not to optimize society but rather to provide a predictable environment in which citizens can optimize their individual and social lives.¹¹⁴ The principle of predictability makes it possible for citizens to have foresight about the application of laws in modern liberal legal systems.¹¹⁵ In addition, the principle of predictability exerts a control function aimed at controlling the arbitrary administration of political power. Futurists who envision a future of legal singularity suggest a relatively weaker form of predictability. The

112 Danaher, John, 'The Threat of Algocracy: Reality, Resistance and Accommodation', *Philosophy & Technology*, Vol. 29, 2016, p. 249.

113 Weber, Robert F., 'Will the 'Legal Singularity' Hollow Out Law's Normative Core?', p. 97.

114 Bostrom, Nick; Yudkowsky, Eliezer, 'The Ethics of Artificial Intelligence', in *Cambridge Handbook of Artificial Intelligence* (eds. William Ramsey; Keith Frankish), Cambridge University Press, 2011, p. 2.

115 Weber, Robert F., 'Will the 'Legal Singularity' Hollow Out Law's Normative Core?', p. 102.

goal of legal futurists here is to revive the theory of legal realism, which aims to transform the legal system into systematic predictions. Similar to legal realists, futurists treat the legal system like any social system, without normative claims of privilege.¹¹⁶

Opposing this ideal of singularity, Pierre Legrand, an academic who positions himself within the context of cosmopolitan polycentrism and demonstrates a critical approach to the ideal of legal singularity, suggests that attempts to harmonize or unify law may result in a 'meta-legal' process. According to him, the idea of instrumentalizing law, which manifests itself through harmony, integration, uniformity, and the streamlining of law, is the basis of the ideal of legal singularity. The first variation of the theme of trans-legality produced on the basis of this idea is associated with the transition from localism to transcendentalism. Legrand also points out the risks that the possibility of realizing the ideal of legal singularity will entail. According to him, the claim of the justice of legal systems can be realized only with reference to the non-identical because 'legal plurality' and 'legal diversity' constitute the source of justice itself and it is not appropriate to combine these two concepts.¹¹⁷

In summary, the ideal of legal singularity, which aims to standardize, harmonize, and integrate law through the structural transformation of the legal system, ignores the national characteristics of legal rules. The ideal of singularity, which does not take into account the socio-economic and socio-cultural dynamics and deep sociology of social structures, envisions an apolitical social mechanism. This ideal denies the onto-political quality of law as an order of life and sociality, and it reproduces the isolating function of a theoretical approach that reduces law to the will of the law-maker.

116 Weber, Robert F., 'Will the 'Legal Singularity' Hollow Out Law's Normative Core?', p. 102.

117 Legrand, Pierre, 'On the Singularity of Law', *Harvard International Law Journal*, Vol. 47, No. 2, 2006, p. 517; Goldsworthy, Daniel, 'Dworkin's Dream: Towards a Singularity of Law', p. 3.

In Lieu of a Conclusion

Evolving from a hunter-gatherer society to an agricultural society, an agricultural society to an industrial society, and an industrial society to an information society, human history is continuing its uninterrupted progress towards becoming a 'super-smart society' with the use of artificial intelligence and other information technologies. Activated by and developed through the desire of humankind to rule over the world of nature and objects, the techno-cognitive mind has facilitated the birth of modern technology, which follows the ideal of facilitating and enriching human life in a practical sense with all its technical abilities and exhibits dynamics of advancement challenging all predictions. The dynamics of technological advancement lead to rapid change in the social order, from the education sector to the health sector, from the defence industry to the service sector, and from the economy to the legal sector.¹¹⁸

The ideal of transhumanism, which aims to surpass the cognitive, affective, and physical abilities of humans through the application of artificial intelligence and diversified digital technological devices, creates dynamics of technological production aimed at improving the human. Transhumanist philosophy, which is also defined as 'the radicalization of the idea of humanism',¹¹⁹ can be regarded as a new ontological challenge of the modern world. This philosophy seeks technical and scientific solutions and innovative applications that can further improve the genetic competence of the human race and increase its intellectual abilities and physical and psychological performance. The post-human understanding that the transhumanistic ideal aims to realize brings with it existential questions of what it means to 'be human'. In relation to this, it is necessary to analyse transhumanistic ontology and the transformative and/or destructive effects of this ontological perspective on legal systems. This transhumanistic perspective, which aims to transcend humanity by using new-generation digital technologies, necessitates a new understanding of society and the legal order.

The ideal of transhumanism leads to some doubts about the concept of human dignity, which is the fundamental ethical value of human rights theory. Fuelled by these doubts, the post-human ideal involves the development of the

118 Kılıç, Muharrem, 'Ethico-Juridical Dimension of Artificial Intelligence Application in the Fight Against Covid-19 Pandemics'.

119 Dağ, Ahmet, 'Hümanizmin Radikalleşmesi Olarak Transhümanizm', *Felsefi Düşün*, Issue 9, 2017.

idea of 'transhumanity', based on the principle of freeing human beings from their genetic defects. Every intervention intended to advance the physical, affective, and cognitive abilities of humans in accordance with the aim of achieving the 'transhuman' ideal is perceived as a threat to human dignity. However, according to transhumanist thought, human dignity in the modern sense is inherent to a person's personal potential, not their pedigree or origin.

In direct relation to this, Nick Bostrom proposes the concept of 'post-human dignity' and argues that the concept of 'dignity' is not something specific to only the human species; rather, this concept is a matter of existential status and potential. He further suggests that surpassing the biological nature of humans will imbue them with even more exalted dignity.

As a creation of technology in the digital age, artificial intelligence has the potential to produce fundamental transformations in our future. This potential presents itself in the legal sector in a new dimension by producing 'legal technology' or 'LegalTech'. This wave of 'creative destruction', which may transform the entire established understanding and practice of law, is also considered a threat to the traditional basic principles and values of law. These fundamental transformations caused by technological developments are making the basic principles of law such as justice, autonomy, accountability, transparency, legality, non-discrimination, and the rule of law increasingly fragile.¹²⁰

Parallel to the developmental dynamics of LegalTech, the prevalence of predictive judicial practices is transforming into a legal ideal conceptualized as 'legal singularity'. In this context, the ideal of legal singularity is intended to eliminate 'legal indeterminacy' and establish an uninterrupted legal order that is universally accessible in real time. This ideal takes on the achievement of 'legal certainty' as a concrete goal. Again, it is necessary to consider how this ideal, which aims to achieve an uninterrupted and predictable legal order, will change and/or transform traditional legal systems. The idea of legal singularity, which can be described as the transformation of law into a self-referential system that can produce its own answers to legal problems, has the potential to affect the basic principles of law destructively.

120 Buchholtz, Gabriele, 'Artificial Intelligence and Legal Tech: Challenges to the Rule of Law', in *Regulating Artificial Intelligence* (eds. Thomas Wischmeyer; Timo Rademacher), Springer Nature, Switzerland, 2020, p. 175; Kılıç, Muharrem, "Ethical-Juridical Inquiry Regarding the Effect of Artificial Intelligence Applications on Legal Profession and Legal Practices", in *Transnational Conference on The Future of Legal Education, The Practice of Law, and The Judiciary*, Istanbul, 9-12 and 15-18 February 2021.

As explained above, predictive onto-robotic representations aim to solve the problem of indeterminacy, which is one of the main problems of the legal system. Nevertheless, it should be noted that this ideal, which sets out with the motto of 'an uninterrupted, completed, self-operating, and fully determined legal system', ignores the traditional basic values of law. It is apparent that this legal design, which does not take into account the morphological dynamics of nations and social structures and aims to 'uniformize' systems, will ultimately have negative effects on the principles of the rule of law and universality.

In this context, there are ongoing discussions about whether onto-robotic representation devices of artificial intelligence will have reasoning abilities allowing them to perform judicial actions in the future. This makes it necessary to consider the 'conscience of algorithms' because the mechanical performance of artificial intelligence judges in terms of judicial action, which is conceptualized as 'algorithmic conscience', creates general concern about fundamental values such as human rights, freedom, equality, and democracy. Expectations that algorithmic and robotic devices, which cannot be assumed to have practical virtues such as wisdom, courage, justice, fairness, conscience, or even compassion, can establish legal justice are very naive. On the other hand, it remains unclear in which framework human rights and trans-legal systems will be organized in a world that is evolving towards a transhumanist understanding. It is unlikely that these onto-robotic representations, which erase the distinction between the natural and unnatural, will integrate the values of traditional legal systems into their algorithmic systems.

Ultimately, the modern legal system is a thought structure that pivots around the 'human' as its subject of rights and freedoms and 'dignity', which is specific to each individual human being in an existential sense. Artificial intelligence applications developed in line with transhumanistic thought, which now poses a challenge to the ontic existence of the human as a legal subject, are producing substitutes in the form of 'onto-robotic representations'. This substitutional understanding of artificial representation does not take into account the specificity of legal reasoning or judicial actions for the 'human'. However, the uniqueness and specificity of each case or legal event makes it necessary to consider legal reasoning processes and judicial actions in terms of their originality in a material sense. These processes also make it necessary for judges to consider human-specific values and evaluation mechanisms in the ontological sense while interpreting each individual situation. At this point, algorithmic devices put into

operation by the idea of onto-robotic representation will be doomed to failure in carrying out judicial justice in the face of the uniqueness of each event.

Despite all futuristic predictions, all human beings with competent virtues such as justice, fairness, compassion, and conscience will maintain their ontic specificity and existence in the face of this onto-robotic challenge. Particularly in terms of criminal justice, substituting a judge who makes decisions based on personal convictions with 'artificial reason' is impossible. Therefore, when the basic principles of law are taken into consideration, the realization of criminal justice via artificial intelligence creates some fundamental ethical and judicial concerns. Artificial intelligence-based robotic technology can substitute for neither the 'discretion of the judge', which exists in relation to the 'legal gap' thesis of Hart's positivist theory of law, nor the 'Judge Hercules' with abilities of constructive and creative interpretation proposed by Dworkin, who theorized law as an integrated system. It is not possible for substitutive artificial consciousness technologies created based on claims of onto-robotic representation to have the capacity to construct legal norms because, as fundamentally 'human creations', the norms of law exist only in a dynamic process of 'social actions' and in accordance with their inherent social dynamics. In line with this reality, it should also be stated that legal reasoning corresponds to a process of creating and applying norms specific to each individual event.

References

Alarie, Benjamin, "The Path of the Law: Toward Legal Singularity", *Political Science*, 2016.

Alston, Philip, "Report of the Special Rapporteur on Extreme Poverty and Human Rights," A/74/48037, October 2019.

Aristotle, *Nicomachean Ethics* (trans. Saffet Babür), Second Edition, BilgeSu Yayıncılık, İstanbul, 2009.

Armstrong, Stuart, "Introduction to the Technological Singularity", *Technological Singularity: Managing the Journey*, (eds. Victor Callaghan; James Miller; Roman Yampolskiy and Stuart Armstrong), Springer-Verlag GmbH Germany 2017.

Atalay, Ahmet Haluk, "Kelsen ve Hart: Bilinebilir Hukuk", *Hukuk Felsefesi ve Sosyolojisi Arkivi*, (eds. Hayrettin Ökçesiz; Gülriz Uygur), İstanbul Barosu Yayınları, 2010.

Aupers, Stef, "The Revenge of the Machines: On Modernity, Digital Technology and Animism", *Asian Journal of Social Science*, Vol. 30, Nu. 2, 2002.

Baujard, Antoinette, "A Return to Bentham's Felicific Calculus: From Moral Welfarism to Technical Non-welfarism", *The European Journal of the History of Economic Thought*, Vol.16, Nu.3, 2009.

Bell, Felicity; Legg, Michael, "Artificial Intelligence and The Legal Profession: Becoming The AI-Enhanced Lawyer", *University of Tasmania Law Review*, Vol. 38, Nu. 2, 2019.

Bentham, Jeremy, *An Introduction to the Principles of Morals and Legislation*, Batoche Books, Kitchener 2000.

Bourdieu, Pierre, *Language and Symbolic Power*, (trans. Gino Raymond; Matthew Adamson), Polity Press, UK: Cambridge 1991.

Bloom, Peter, *Identity, Institutions and Governance in an AI World: Transhuman Relations*, Palgrave Macmillan, Switzerland 2020.

Bostrom, Nick; Yudkowsky, Eliezer, "The Ethics of Artificial Intelligence", *Cambridge Handbook of Artificial Intelligence*, (eds. William Ramsey and Keith Frankish), Cambridge University Press, Cambridge 2011.

Braga, Adriana; Logan, Robert K., "The Emperor of Strong AI Has No Clothes: Limits to Artificial Intelligence", *Information*, Vol. 8, 2017.

Buchholtz, Gabriele, "Artificial Intelligence and Legal Tech: Challenges to the Rule of Law", *Regulating Artificial Intelligence*, (eds. Thomas Wischmeyer; Timo Rademacher), Springer Nature Switzerland AG, 2020.

Cameron, Andy; Barbrook, Richard, "The Californian Ideology", *Science As Culture*, Vol. 6, Nu. 1, 1996.

Casey, Anthony, "Self-Driving Laws", *University of Toronto Law Journal*, Vol.429, 2016.

Churchland, Patricia S., *Conscience: The Origins of Moral Intuition*, W. W. Norton & Company, London & New York 2019.

Cordeiro, José, "The Boundaries of the Human", *World Futures Review*, Vol. 6, Nu. 3, 2014.

Dağ, Ahmet, "Hümanizmin Radikalleşmesi Olarak Transhümanizm", *Felsefi Düşün*, Issue. 9, 2017.

Danaher, John, "The Threat of Algocracy: Reality, Resistance and Accommodation", *Philosophy & Technology*, Vol. 29, 2016.

Davis, Joshua P., "Artificial Wisdom? A Potential Limit on AI in Law (and Elsewhere)", *Oklahoma Law Review*, Vol. 72, Nu. 1, 2019.

Dickson, Ben, "Will Artificial Intelligence Have A Conscience?", 2020, <https://bdtechtalks.com/2020/09/28/ai-conscience-patricia-churchland/>, Date of Access : 13.03.2021.

Durán, Juan M., "Computer Simulations as a Technological Singularity in the Empirical Sciences", *The Technological Singularity: Managing the Journey*, (eds. Victor Callaghan; James Miller; Roman Yampolskiy and Stuart Armstrong), Springer-Verlag GmbH Germany 2017.

Dworkin, Ronald, *Taking Rights Seriously*, Harvard University Press, Cambridge& Massachusetts 1977.

Eliot, Lance B., "Multidimensionality of Legal Singularity: Parametric Analysis and the Autonomous Levels of AI Legal Reasoning", ArXiv, 2020.

European Commission For The Efficiency of Justice (CEPEJ), *European Ethical Charter On The Use of Artificial Intelligence in Judicial Systems and Their Environment*, Strasbourg, 3-4 December 2018.

European Union Agency for Fundamental Rights, "Getting The Future Right Artificial Intelligence and Fundamental Rights", Office of the European Union, Luxembourg 2020.

Feyzioğlu, Metin, *Ceza Muhakemesinde İspatın Ölçütü Olarak Vicdani Kanaat*, İslık Yayınları, İstanbul 2015.

Fuchs, Christian, "Günther Anders' Undiscovered Critical Theory of Technology in the Age of Big Data Capitalism", *TripleC*, Vol. 15, Nu. 2, 2017.

Fukuyama, Mayumi, "Society 5.0: Aiming for a New Human-Centered Society", *Japan Spotlight*, August 2018.

Goldsworthy, Daniel, "Dworkin's Dream: Towards a Singularity of Law", *Alternative Law Journal*, Vol. 44, Nu. 4, 2019.

Gutierrez Gaviria; Carlos Ignacio, *The Unforeseen Consequences of Artificial Intelligence (AI) on Society A Systematic Review of Regulatory Gaps Generated by AI in the U.S.*, RAND Corporation, Dissertation, 2020.

Han Chul, Byung, *Kapitalizm ve Ölüm Dürtüsü*, (trans. Çağlar Tanyeri), İnka Kitap, First Edition, İstanbul 2021.

Haraway, Donna, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late 20th Century", *The International Handbook of Virtual Learning Environments*, (eds. Joel Weiss; Jason Nolan; Jeremy Hunsinger and Peter Trifonas), Springer 2006.

Hart, H.L.A, *The Concept of Law*, (eds. Penelope A. Bulloch and Joseph Raz), Oxford University Press, Second Edition, New York 1994.

Heidegger, Martin, *Varlık ve Zaman*, (trans. Kaan H. Ökten), Agora Kitaplığı, Second Edition, İstanbul 2011.

Hildt, Elisabeth, "Artificial Intelligence: Does Consciousness Matter?", *Frontiers in Psychology*, 2019.

Iphofen, Ron; Kritikos, Mihalis, "Regulating Artificial Intelligence and Robotics: Ethics By Design In A Digital Society", *Contemporary Social Science*, 2019.

Jotterand, Fabrice, "Human Dignity and Transhumanism: Do Anthro-Technological Devices Have Moral Status?", *The American Journal of Bioethics*, Vol. 10, Nu. 7, 2010.

Kayum, Ahmed, "Delinking The "Human" From Human Rights: Artificial Intelligence and Transhumanism", <https://www.openglobalrights.org/delinking-the-human-from-human-rights-artificial-intelligence-and-transhumanism/>, Date of Access: 18.03.2021.

Kılıç, Muharrem, "Ethical-Juridical Inquiry Regarding the Effect of Artificial Intelligence Applications on Legal Profession and Legal Practices", Transnational Conference on The Future of Legal Education, The Practice of Law, and The Judiciary, İstanbul, February 9-12, 15-18, 2021.

Kılıç, Muharrem, "Ethico-Juridical Dimension of Artificial Intelligence Application in the Fight Against Covid-19 Pandemics", *The Impact of Artificial Intelligence on Governance, Economics and Finance*, Springer 2021.

Kılıç, Muharrem, *Pandemi Döneminde Sosyal Haklar Sosyal Hakların Sosyo-Legal Dinamiği*, Seçkin Yayıncılık, Ankara 2021.

Kurzweil, Ray, *İnsanlık 2.0*, (trans. Mine Şengel), Alfa Yayıncılık, Fifth Edition, İstanbul 2020.

Kurzweil, Ray, *The Singularity is Near: When Humans Transcend Biology*, Viking Penguin, New York 2005.

Leslie, David, Burr, Christopher, Aitken, Mhairi, et al. "Artificial Intelligence, Human Rights, Democracy, and the Rule of Law: A Primer", The Council of Europe, 2021.

Legrand, Pierre, "On the Singularity of Law", *Harvard International Law Journal*, Vol. 47, Nu. 2, 2006.

Leith, Philip, "The Judge and the Computer: How Best 'Decision Support'?", *Judicial Applications of Artificial Intelligence*, (eds. Giovanni Sartor; Karl Branting), First Edition, Springer 1998.

Llano, Fernando H., "Transhumanism, Vulnerability and Human Dignity", *Deusto Journal of Human Rights*, Nu. 4, 2019.

Markou, Christopher; Deakin, Simon, "Is Law Computable? From Rule of Law to Legal Singularity", *University of Cambridge Faculty of Law Research Paper*, 2020.

Meissne, Gunter, "Artificial Intelligence: Consciousness and Conscience", *AI & Society*, Vol. 35, 2020.

Michelon, Claudio, "Practical Wisdom in Legal Decision-Making", *Edinburgh School of Law Working Paper Series*, 2010.

More, Max, "The Philosophy of Transhumanism", *The Transhumanist Reader*, (eds. Max More; Natasha Vita), John Wiley & Sons, 2013.

Mulder, Wim De, "The Legal Singularity", <https://www.law.kuleuven.be/citip/blog/the-legal-singularity/>, Date of Access: 11.03.2021.

Rohde, Klaus, "Intelligence and Consciousnes: Artifical intelligence and Conscious Robots, Soul and Immortality", <https://krohde.wordpress.com/2016/04/10/intelligence-and-consciousness-artifical-intelligence-and-conscious-robots-soul-and-immortality/>, Date of Access: 3.04.2021.

Saracel, Nüket; Aksoy, İrmak, "Toplum 5.0: Süper Akıllı Toplum", *Social Sciences Research Journal*, Vol. 9, Nu. 2, 2020.

Satıcı, Murat, "Adalet, Yasallık ve Demokrasi Uğraklarında Yargı Meselesi", *Yargıya Felsefeyle Bakmak*, Yapı Kredi Yayınları, (haz. Kurtul Gülenç; Özlem Duva), First Edition, İstanbul 2016.

Searle, John R., *Minds, Brains and Science*, Harvard University Press, New York 2003.

Schwarz, Elke, "Günther Anders in Silicon Valley: Artificial Intelligence and Moral Atrophy", *Thesis Eleven*, Vol. 153, Nu. 1, 2019.

Shytov, Alexander Nikolaevich, *Conscience and Love in Making Judicial Decisions*, (eds. Francisco J. Laporta; Aleksander Peczenik; Frederick Schauer), Springer Science, Netherlands 2001.

Solum, Lawrence B., "The Virtues and Vices of a Judge: An Aristotelian Guide to Judicial Selection", *Southern California Law Review*, Vol. 61, 1988.

Susskind, Richard, *Tomorrow's Lawyers: An Introduction to Your Future*, Oxford University Press, Second Edition, United Kingdom 2017.

Taruffo, Michele, "Judicial Decisions and Artificial Intelligence", *Judicial Applications of Artificial Intelligence*, (eds. Giovanni Sartor; Karl Branting), First Edition, Springer, Netherlands 1998.

Tester, Keith, "Review of *Prometheanism: Technology, Digital Culture and Human Obsolescence*, *Thesis Eleven*", Vol. 148, Nu. 1, 2018.

The United Nations Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development, *A World that Counts Mobilising the Data Revolution for Sustainable Development*, 2014.

Toraldo, Marta; Toraldo, Domenico M., "Trans-Human and Post-Human: A Challenge for the Human and Philosophical Sciences", *Open Journal of Philosophy*, Vol. 9, 2019.

Toscano, Alberto, "The Promethean Gap: Modernism, Machines, and the Obsolescence of Man", *Johns Hopkins University Press*, Vol. 23, Nu. 3, 2016.

Turing, Alan Mathison, "Can Digital Computers Think?" *The Essential Turing Seminal Writings in Computing, Logic, Philosophy, Artificial Intelligence, and Artificial Life: Plus The Secrets of Enigma*, (ed. B. Jack Copeland), Oxford: Clarendon, 2004.

Türkbağ, Ahmet Ulvi, "Hart-Dworkin Tartışmasının Ana Hatları", *Hukuk Felsefesi ve Sosyolojisi Arkivi*, (ed. Hayrettin Ökçesiz), sy. 16, İstanbul 2007.

Uygun, Gülriz, "Hukuki Belirsizlik Sorunu Üzerine", Ankara Üniversitesi Hukuk Fakültesi Dergisi, Vol. 51, Nu. 2, 2002.

Volokh, Eugene, "Chief Justice Robots", *Duke Law Journal*, Vol. 68, 2019.

Wah, Ng Gee; Chi, Leung Wang, "Strong Artificial Intelligence and Consciousness", *Journal of Artificial Intelligence and Consciousness*, Vol. 7, Nu. 1, 2020.

Weber, Max, *Sosyoloji Yazıları*, (trans. Talha Parla), İletişim Yayınları, First Edition, İstanbul 1996.

Weber, Robert F., "Will the 'Legal Singularity' Hollow Out Law's Normative Core?", *Michigan Technology Law Review*, Vol. 27, Nu. 97, 2021.

[https://www.wordsense.eu/conscire/#:~:text=%22know%22\).,Verb,1%20know%20well](https://www.wordsense.eu/conscire/#:~:text=%22know%22).,Verb,1%20know%20well), Date of Access: 4.04.2021.

