SHOULD FULLY AUTONOMOUS ARTIFICIAL INTELLIGENCE SYSTEMS BE GRANTED LEGAL CAPACITY?

Mindaugas Naučius¹
DOI: http://dx.doi.org/10.7220/2029-4239.17.6

SUMMARY

The aim of this article is to address the issue of granting legal capacity to artificial intelligence systems. In order to approach the solution to the problem addressed, the article includes several aspects, relevant in order to achieve it.

To begin with, the general concept of legal capacity is introduced. Following this aspect, the main features of both natural and juridical persons are addressed, in order to become familiar with the content of legal capacity, or in other words, to be aware – what features do these individuals, which are at present granted legal capacity, possess.

Furthermore, the different topic of artificial intelligence is explained, having the aim to clarify, what are the features of artificial intelligence, and whether these features conform with the criteria, which are needed in order to be granted legal capacity. Following this, the additional questions are being discussed, which are relevant while deciding the present issue.

Finally, the conclusions of the research have been made, regarding the presented problem.

KEYWORDS

Legal capacity, artificial intelligence, fully autonomous, autonomy.

¹ Authors is student at Vytautas Magnus university Faculty of Law (Kaunas, Lithuania).
INTRODUCTION

Fully autonomous artificial intelligence systems, such as robots, constantly take part in various science fiction movies and books, and, therefore have reached the minds of the vast majority of world’s people. We are already used to them as to one of the most common „species“ in the popular culture. However, the dominant belief nowadays among IT specialists, law researchers and scientists, is that fully autonomous artificial intelligence systems are due to step out of the movie screens and become a part of the world’s community in the near future. However, if creation of these subjects is one important task, another crucial aim is to determine the upcoming legal status of fully autonomous artificial intelligence subjects. The humanity deserves to know, whether artificial intelligence entities should be empowered with the same rights and responsibilities as human beings, or should they be granted less of them. In other words, community must be aware, if there are sufficient reasons to allow humans to make sales contracts with artificial intelligence subjects, to employ them, or even, to grant them such powers as to enact laws or to judge in the court, as well as many other rights, which are at present assigned to human beings, and in some instances, to juridical persons. In order to approach the answer to this question, there are several aspects to be taken into account. Firstly, the concept and content of legal capacity has to be addressed regarding both natural and juridical persons. Secondly, the relevant part is to clarify, what does the notion of artificial intelligence mean and what characteristics does it possess. Thirdly, it is necessary to establish, whether the features of artificial intelligence are sufficient to grant them legal capacity. Furthermore, the issues of morality and consciousness, attributed to capable natural persons, must be discussed as ones of main importance, if we start a consideration about granting the legal capacity to a particular artificial entity. The possibility of overtaking the control of the world by highly advanced artificial intelligence subjects, what might lead them to becoming the dominant race on the planet is another sensitive and important issue. And the final consideration discussed, is the criminal liability issues of the artificial intelligence subjects.

GENERAL CONCEPT OF LEGAL CAPACITY

In order to address the issue of whether the legal capacity should be granted to fully autonomous artificial intelligence systems, it is obligatory to reveal the concept and content of legal capacity itself at the beginning.

The Portuguese legal scholar of the university of Minho in Braga, Francisco Andrade, and IT specialists of the same university Paulo Novais, Jose Machado and Jose Neves reveal, that „in legal theory „personality“ is not a „physical“ or „natural“ concept, it is rather the capability of being a subject of rights and obligations.“ They also believe, that „it is „important to establish „whether the entity can and should be made the subject of a set of legal rights and duties“, and
capable „of being a centre of production of legal effects (constitution, modifying, and extinction of legal relations).“²

The aforementioned scholars essentially believe, that the legal capacity means an ability to have or be able to create particular rights and responsibilities, and that the notion „legal capacity“ is not merely connected with being a natural person.

These ideas are firstly supported by the german legal philosopher Hans Kelsen, who stated that „personhood in the legal sense is only a technical personification of a complex of norms, rights and duties. “³

Moreover, mexican law specialist Eduardo Garcia Maynez, also agrees with the former opinions, by stating that a “person” is „any being capable of having powers and duties“.⁴

Eleonora Badan – Melnic and Claudia Lechi, law researchers of the university of Chisinau in Moldova, did also indicate that „the civil capacity<...>consists in the ability to have rights and obligations, it allows various entities, physical persons and juridical persons, to have the quality of civil law subjects.⁵

In contrast, there exist other scholars’ opinions, of what legal capacity is. For example, Steven M. Wise states that legal capacity is an ability to possess at least one right, and therefore animals would be deemed as being legally capable.⁶ Carl von Savigny indicates, that only natural persons could be called as persons, because juridical persons lack free will, and therefore possess no personality.⁷

However, these two latter ideas proposed by Steven M. Wise and C. von Savigny are clearly not dominant in the world, since animals are not usually treated as legal subjects by the legislation of states, and juridical persons, on the contrary, are treated as legal persons, probably, in all of the states’ civil and criminal codes.

Therefore, the scholars, who use terms „set of rights“ or „complex of rights and duties“ are more accurate, since in the present world, the only subjects implicitly declared by states as persons, are owners of a set or a complex of rights. And these subjects are natural and juridical persons.

Moreover, it is worth to note, that there are two types of legal capacity. As Visa A.J. Kurki, PhD Candidate of the University of Cambridge implies, the two different types of legal capacity are passive and active, where active means a person’s ability „to enter into contracts and perform other acts“; an ability to vote; also an ability „to be regulated by law and to be held responsible for [his/her] actions“. As opposed to, the passive legal capacity is the one, which allows person not to perform actions, but only to possess certain rights. For example, a person with passive legal capacity possesses the ability „to own property even if there is no ability to

⁴ Id, in E. G. Maynez, Introduction to Law (31st ed., 1980), p.21
⁵ E. Badan – Melnic, C. Lachi, “Civil Legal Capacity – Determining Factor In Establishing And Making Legal Relations,” Contemporary Legal Institutions, Romanian-American University, (2014, vol. 6(1)), p. 187
⁷ Supra note 3.
dispose of it independently”; has a life, liberty and bodily integrity protected; has the standing in
courts, even though someone else, who enjoys active legal capacity has to represent them; has a
right „not to be susceptible to being owned“; enjoys „the protection by criminal law as potential
victims“; and possesses the ability „to undergo legal harms (torts) which may lead to restitution
or compensation.” Following this, it is important to notify, that active legal capacity generally
means performance, and passive – possession of certain rights. The same outlook is defined in
the Civil code of Lithuania, where passive legal capacity means the person’s ability to possess
legal rights and responsibilities, and active legal capacity means person’s ability to create rights
and responsibilities with their actions.9

In any instance, though, in the following text, the term „legal capacity“, if there won’t be
any specification, will be understood as „at least a passive legal capacity“, since this type of
capacity is enough to treat an entity as a legal person – as a part of a legal system. Active legal
capacity is the one, which grants additional abilities to a person.

Having this general concept of the term „legal capacity“ in mind, the revelation of it’s
content is necessary for the further research, regarding both natural and juridical persons.

SKYRIAUS PAVADINIMAS

LEGAL CAPACITY OF
NATURAL AND JURIDICAL PERSONS

Legal capacity of natural persons

Nowadays, the greatest variety of rights and responsibilities are vested in natural
persons. One of the legal scholars Alexis Dyschkant, by citing Lawrence B. Solum, indicates,
that the most important legal person category is natural persons.10 The legal scholar Jessica Berg
argues similarly, by indicating that „natural persons function as the baseline against which other
rights allocations are judged. Our society was developed by and for natural persons, and thus
legal rights focus on this group“11

Consequently, the crucial task is then to clarify, what the concept of „natural persons“
means in depth, and what characteristics does this category of legal persons possess.

Firstly, as the dutch legal philosopher Frank van Dun indicates, „human beings are
cited as the paradigmatic natural persons“.12 It essentially means, that most commonly, the
notions of „human“ and „natural person“ are treated as synonyms. This thought is approved by
legal scholar Alexis Dyschkant, who indicates, that „the key feature of a legal person—the ability

---

8 V. Kurki, „Revisiting legal personhood“ Paper for Spanish-Finnish Seminar in Legal
Theory, (2016), p.18
9 LR Civilinis kodeksas (Suvestinė redakcija nuo 2018-01-01 iki 2018-02-28), eng. Civil
10 A. Dyschkant, „Legal personhood: how we are getting it wrong“, University of Illinois
to bear rights and duties — is commonly associated with humanity.” However, Frank van Dun adds the idea, that it is still unclear, whether the concept of a natural person needs to be restricted to human persons, since the supernatural agents might have an ability „to act and speak for themselves”, which, in this scholar’s view, is one of the main characteristics of a natural person. The similar thoughts are produced by Alexis Dyschkant. She designates, that „the more like an average, adult human being [an entity is], the more likely [it] is a person.” Essentially the same opinion has been established by Jessica Berg and Lawrence B. Solum. Jessica Berg argues that, „to the extent that an entity matches the relevant characteristics of entities which have all the characteristics of persons—e.g., adult competent human beings—that entity should be afforded personhood protections because to do otherwise would both be inconsistent and would undermine the rights sought to be upheld.” And afterwards, she uses a comparison with slavery, while noticing, that even though the Framers of the U.S. Constitution did not grant equal rights to the slaves as they did to other people, there were significant similarities between those two groups, the only difference being a skin colour. Therefore, the similarity requirement must be thoroughly investigated while deciding on granting legal rights to non-human entities, in order to avoid vast discrimination. To conclude this chapter, it is safe to state, that at the moment natural person is a human being — precisely — competent adult human being, even though, there is a possibility to include even non-natural individuals into this category, in the event that they reach a certain similarity to those human beings.

However, even though humanity is closely connected to natural personality, Frank van Dun makes a clear cut, by giving a statement, that „not all human beings are natural persons.” He further adds, that „[s]ome human beings are definitely and permanently incapable of functioning or acting as persons because of a genetic condition, an accident or a debilitating disease.” However, this scholar believes that human fetuses and children must be considered as natural persons, because of the fact that they will almost invariably „develop their personal capabilities and become able to exercise them.” Children, of course, have been given a certain set of rights, depending on their age, and fetus is also given a set of rights, if it is chosen to be declared a person. Dyschkant cites the case of the U.S. Supreme Court, in which the judge has declared human fetus as a legal person, because of the same reason, which Frank van Dun has shown — „the potentiality of human life”, or in other words, because an entity has a potential to become a human. However, the scholar herself is more cautious, and argues that it is not completely obvious, whether a fetus is a human, while it is completely obvious regarding a child. The nations of the world are also cautious

13 Supra note 10, p. 2076
14 Supra note 12, p.3.
15 Supra note 10, p. 2080.
17 Supra note 11, p. 386.
18 Id., p. 386.
19 Supra note 12, p. 4.
20 Id. p. 5.
21 Supra note 10, p. 2082, in Roe v. Wade, 410 U.S. 113, 163 (1973)
22 Id, p. 2083.
regarding the subject, knowing the fact that only 9 states provide such legislation, which treats human fetuses the same as already born children. On the other hand, having known that certain nations do consider the unborn as legal persons, and having the scholars’ sources in regard, it can be indicated that fetus can be a legal person. This concludes, that human factor is still meaningful, while deciding the legal capacity issue, and it is clear that humans lose or do not gain this capacity in very exceptional instances.

While having the aforementioned chapters in regard, two alternative criteria of legal capacity are clear: whether an entity is a competent adult human, or has a significant similarity to him/her. And the entities of that significant similarity are considered to be children and human fetuses. However, in order to explain what the significant similarity means, the other criteria of natural persons have to be taken into account.

Visa A.J. Kurki offers a set of such criteria, while stating, that „paradigmatically natural persons in modern Western legal systems are human beings, who have been born, are currently alive, and are sentient.“ The criterion of being human was mentioned already before, and the one of being born is not uniformly accepted, since human fetuses can be natural persons, as the state practice and scholars’ views indicate.

Adding more to the feature of natural persons – a requirement to be a human, it is essentially necessary in every country. There is almost no possibility to be a natural person, without being a human. However, a one recent event can be seen as a trigger not to follow this rule. In the autumn of 2017, Saudi Arabia granted the citizenship to a female robot. It is still unclear, whether this action means, that Saudi Arabia acknowledges this robot as a subject of a majority of rights and responsibilities, because firstly, it might be a symbolic gesture to attract investments, and secondly, it is doubtful, whether this particular robot, which at the moment is intellectually not equivalent to an average human being, possesses all the requirements needed for a legal capacity. It is further doubtful, whether this robot should be considered as a natural person, a juridical person or should there be another notion of personality created. Even if robots will intellectually evolve in the future, it is unclear whether physical and intellectual similarity would be a sufficient argument to consider these robots equivalent to human beings and therefore consider them being natural persons or equivalent to natural persons.

However, one aspect is certain – a question of legal capacity is open, and the number of subjects, enjoying particular sets of rights and responsibilities, might well increase, especially having rapid technological development in mind. Andrade and others indicate, that „intelligent software agents are much closer to a human being than to a corporate body. They can have a physical existence—at least, robots do, through a combination of physical elements (hardware) and logical elements (software)—and they have the capability of having a will of their own.“ On the other hand, as for the present situation, we must conclude, that the concept of „natural person“ is in all events inseparably connected with the concept of „human being“.

---

23 Chile’s Constitution of 1980 with Amendments through 2012, Chapter III, Article 19, paragraph 1: The law protects the life of those about to be born.
24 Id, p. 8.
25 Id.
27 Supra note 2, p. 362.
Looking at another criterion - that only a living being can enjoy rights and responsibilities, it could almost not be disputed. A death of a person is certainly a moment, when he ceases having a majority of rights and responsibilities. However, even after the death, some of the rights remain – specifically those, which are connected to the carrying of the last will. As Frank van Dun states, „a deceased human person may remain a person, a constituent of the human world, for as long as there is a living representative to ‘carry out his will’“.

Also, specific rights such as right of disposal of a body, and a right of respect of the tomb exist, but these are the rights only attributed, when a person is declared dead, therefore is hardly connected with legal capacity of natural persons. Dead human being would be only declared person if we accept the outlook, that having at least one right creates legal capacity.

What is more, the requirement from the list, mentioned in the first paragraph of this chapter, is being sentient. This notion essentially means „one, who has senses“, „one, who has an ability to sense“. It might well be confused with the expression „sapient“, which means „one, who is conscious, aware“. However, being sapient is not a requirement to have rights and responsibilities in general. As Frank van Dun inclines, „being asleep, unconscious, or drugged, does not turn them into nonpersons. Here too we can look to their personal histories or prevailing customs to find out whether, how and by whom they should be represented while they are unable to represent themselves.“ As will be mentioned later in this thesis, consciousness is a necessary requirement to be granted active rights and responsibilities.

Describing the requirement of playing a social role, Andrade and others, by citing Woodrow Barfield incitate that „the issue of social roles looks determinant for the attribution of legal personality, maybe even more determinant than intelligence or self-consciousness.“ These scholars merely identify the notion of „playing a social role“ as an ability to communicate. In other words, the subject, who plays a social role not only should understand a particular aspect, but it must be able to express it’s ideas in a way it could be understood by the majority of world’s legal persons. Frank van Dun has even identified natural persons as „the speech community“, showing the relevancy of a social role. This scholar also highlighted the person’s ability to act and speak for himself, or an ability to do so in the future, as one of the main and necessary features of a person.

Final criterion to be considered – is the interest factor. This feature concentrates on whether a person has his own interests, or the only interests are those of the others. In the event, the individual has his own interests, he is definitelly regarded as a legal person, and when he does not possess them, there is less clarty. Jessica Berg believes, that legal capacity based on the interests of others may be more limited than legal personhood based on the interests of the entity itself.

Afterwards, the social roles played by natural and juridical persons as well as the intelligence software, are examined. „Natural persons will (can) play—regardless of the intelligence level of each person—a social role. Legal [juridical – auth. rem.] persons, although

30 Supra note 12, p. 4.
32 Supra note 12, p. 5.
33 Supra note 11, p. 376.
instrumental to men interest, also play relevant social roles. Intelligent software agents may as well, in a near future, play a relevant social role.\textsuperscript{34}

However, because of the lack of their ability to speak and communicate, animals cannot play social roles, and thus, there is more difficult to grant them legal capacity. For example, „big apes, although eventually capable of self-consciousness and of a child-like intelligence or even capable of learning their own, yet limited, forms of language will not play any relevant social role for the human community. And this is one of the reasons why big primates, although having such capabilities and intelligence, will not be considered legal persons. So, it must be questioned which actors intervene in nowadays human societies.\textsuperscript{35}

It appears that every human being, along with the companies have their part in communication with other people and entities. And it indeed can be an explanation, why other intelligent beings are not being granted legal capacity, but even the least intelligent humans are. Of course, one might be confused, how this criterion should be connected with the legal personality of the unborn, but it could be argued, that these persons still have an opportunity to become social beings in the future. As Frank van Dun argued, „we almost invariably expect them to become persons and hope that they do.“\textsuperscript{36}

To conclude the features, needed to be acknowledged as a natural person, the following list should be given: the necessity to be a human, to be alive, to be sentient, and to play a social role, or to possess a chance to play this role in the future.

### Legal capacity of juridical persons

In contrast to “natural person,” the designation “juridical person” is used to refer to an entity that is not a human being, but for which society chooses to afford some of the same legal protections and rights as to natural persons. Corporations are the best example of this category, but juridical persons may also include other entities.\textsuperscript{37} As stated in the Article 1 of the U.S. Code, the subjects, which can be defined by the notion of „person“ include „corporations, companies, associations, firms, partnerships, societies, and joint stock companies“.\textsuperscript{38} Most of the jurisdictions in the world, allow specific entities, other than individuals, to gain rights and responsibilities. Because of this fact, the aforementioned entities are granted legal capacity.

While performing the comparison between the requirements which are needed to fulfil in order to be declared a natural person, with those which are needed for a juridical person, there are both similarities and differences. For example, a difference is that juridical person is not a human being – it is a fictional entity created to perform certain acts, however, a similarity might be that juridical persons must be created and operated by human beings. As Dyschkant inclines, „it is the capabilities of the human beings who control the corporation that actually constitute the personhood of the corporation“\textsuperscript{39}

Also, a certain similarity between these two persons is that there is a certain moment in time, when both natural and legal person gain rights and responsibilities – for natural person it is

\textsuperscript{34} Supra note 31.
\textsuperscript{35} Id, p. 404.
\textsuperscript{36} Supra note 12, p. 5.
\textsuperscript{37} Supra note 11, p. 373.
\textsuperscript{38} United States Code: Art. 1, „Words denoting number, gender, and so forth“
\textsuperscript{39} Supra note 10, p. 2084, 2085.
either the time of conception or the time of birth, and for the juridical person – it is the moment of establishment. If, for example, the company is in fact operating without being established, it does not enjoy any rights, and it can further be subject to certain sanctions related to operating without licence. Being alive requirement is also valid, because a juridical person is subject to rights and responsibilities as long as it is functioning – after liquidation, a juridical person loses its life along with rights and responsibilities. Talking about sentience, every entity is being operated through sentient human beings, and sentience itself is certainly not a requirement for an entity to be granted legal capacity, along with other requirements, which could only be attributed to human beings. Speaking about a social role requirement, Barfield argues that „legal [juridical] persons, although instrumental to men interest, also play relevant social roles.” In this instance, according to his view, juridical persons, like natural persons are certainly social actors, and since Barfield believes that social role is a determinant criterion for granting legal capacity, they both are and must be legal persons.

Revealing the content of rights vested in juridical persons, the civil code of Lithuania designates that private juridical persons can gain all civil rights and responsibilities, except ones, which can only be granted to natural persons, because of their exceptional characteristics, such as sex, age or family relations. Juridical persons can own property, sue and be sued, enter into contracts and have other both passive and active rights and responsibilities, except for example the right and power to vote or enter into the marriage, which are inherent human rights and responsibilities. Furthermore, in the aforementioned civil code is also a distinction between private and public juridical persons, where the public ones have the special legal capacity and can only be granted such rights and responsibilities, which do not contradict with their articles of association and main goals of the activity. In the view of Tushar Kanti Saha, the legal personality of a corporation was established to include five legal rights—the right to a common treasury or chest (including the right to own property), the right to a corporate seal (i.e., the right to make and sign contracts), the right to sue and be sued (to enforce contracts), the right to hire agents (employees) and the right to make by-laws (self-governance). What is more, juridical persons often enjoy limited liability, which means that the owners are not liable for the debts of this entity. However, in some cases, the owners might be liable, if the company breaches law and/or obligations. This is defined by a definition „piercing the corporate veil.”

Moreover, the concept of „juridical personhood“, in the view of Jessica Berg can be used in order to grant particular rights to non-human animals. She states that „perhaps we should develop a system of lesser legal status for non-human animals. The fact that the law as it is currently written does not include nonhuman animals does not mean that it could not be altered to recognize the rights of entities with varying moral status. Rather than do so by creating new categories,<...> that is what could be done with the concept of „juridical personhood.” In this instance, it could be argued that other non-human entities, with a questionable morality, such as

---

40 Supra note 34.
41 Supra note 7, Art. 2.74.
42 Ibid, Art. 2.34.
45 Supra note 35.
the artificial intelligence systems could be categorized as „juridical persons“. They would then, depending on their development, enjoy rights and responsibilities, which could be attributed to other juridical persons, but would not have rights and responsibilities which are inherent to human beings.

**CONCEPT AND FEATURES OF ARTIFICIAL INTELLIGENCE**

Since the aim of this article is to find an answer, whether the legal capacity should be granted to fully autonomous artificial intelligence, this latter notion must be clarified.

Firstly, a computer scientist, a scholar of Stanford university Nils Nilsson identifies the notion of artificial intelligence as „[an] activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment.“ [46] Therefore, it is clear that artificial intelligence is some entity created by humans and able to complete the given tasks, while having the environment in regard. However, the aforementioned explanation of artificial intelligence does not provide any information about a level of intelligence possessed by an entity to be treated artificial intelligence. In essence, in the view of Nils Nilsson, artificial intelligence in general does not necessarily need to possess same or similar intellectual capabilities as human beings, does not need to communicate with humans or be independent from them. Generally, artificial intelligence is a task making creation. As Study Panel in the article „ARTIFICIAL INTELLIGENCE AND LIFE IN 2030“ argues, „using this broad interpretation, the simple electronic calculator would fall within the realm of artificial intelligence, even though modern artificial intelligence is much more advanced.“ [47] In this case, the paradox, addressed by Pamela McCorduck should be noted, that when artificial intelligence brings a new technology into the common fold, people become accustomed to this technology, it stops being considered AI, and newer technology emerges. In addition, Study Panel gives another criterion of artificial intelligence, which is exceeding human capability in a specific area, even though identifies it as a „sufficient“, but „unnecessary“ criterion.

Another vision is offered by Stuart Russell and Peter Norvig, who provide different understanding of what artificial intelligence is. In their view, artificial intelligence is a way of making a computer, a computer-controlled robot, or a software think intelligently, in the similar manner the intelligent humans think. This can be achieved by investigating how humans act and think, and trying to replicate it. Even more, these scholars believe, that some artificial intelligence systems could exceed the capabilities of human beings, while becoming the rational beings, which not only be able to think logically, but also to act rationally, while finding the best solution to the situation, without necessarily using logic.

It is clear from the previous chapters, that artificial intelligence is an artificial creation, which performs certain tasks, and this performance exceeds human capabilities in a specific area, all the areas, or simply replicates these abilities. And since the main concentration is on whether an entity could be granted legal capacity, the question concerns not any artificial intelligence, but

---


only the most developed ones which is both autonomous and resembling or exceeding humans’ capabilities. Having this in regard, scholars argue, that the science of artificial intelligence specifically is moving towards the creation of artificial intelligence, which would be able to communicate and collaborate with humans, while possessing an advanced behaviour as well as an ability to adopt to dynamic conditions.

However, finding the answer to the problem of this article requires to find a notion of the term „fully autonomous“, after explaining artificial intelligence. As Reid Simmons and Samee Khan argue, by citing Executive Office of the President National Science and Technology Council Committee on Technology, „autonomy is the ability of a system to operate and adapt to changing circumstances with reduced or without human control.“ The essentially same notion is provided by Andrew Iliachinski, which implies, that autonomous systems are the ones, which have an ability „to sense, perceive, detect, identify, classify, plan for, decide on, and respond to diverse set of threats in complex and uncertain environments.” This scholar also acknowledges a decreasing human abilities to control and predict such systems. Full autonomy in this sense would mean the absolute independence of artificial intelligence, and the ability to produce an idea in itself and use it how the entity deems appropriate.

Thus, as indicated before, the similarity of artificial intelligence systems to an entity, which has a legal status, is the crucial aspect in deciding whether the artificial intelligence system will be granted legal personhood. Even though some of the similarities have been found, or at least, are possible to be found in the future, e.g. intelligence, autonomy, ability to socialise and communicate, ability to sense and have interests, some of the further questions still arise and raise considerations about whether granting legal capacity to non – humans, is a just outcome.

THE ASPECT OF MORALITY

To begin with, the aspect of morality is ought to be taken into account in relation to the topic of this article. Starting with the definition of the term, The Oxford Dictionaries explain it as „[p]rinciples concerning the distinction between right and wrong or good and bad behaviour“. There are many various understandings of what is „right“ and „wrong“ or „good“ and „bad“, so even the term itself is worth consideration. This leads us to following questions concerning morality. Firstly, how can we define it? Secondly, can this feature be a part of an artificial intelligence subject? And is the morality relevant at all, while discussing about granting legal rights to the artificial intelligence subjects?

Back in 1974, the famous scientist of robotics, a professor emeritus of the MIT (Massachusetts Institute of Technology) Joseph Weizenbaum answered these questions while stating, that some of the jobs should never be performed by artificial intelligence, because some particular positions, such as one of a judge, a doctor, a therapist require morality, which exclusively belongs to natural persons. Weizenbaum stated that we seek authentic feelings of empathy from people in these positions. If machines replace them, we will find ourselves

49 Id.
alienated, devalued and frustrated. Artificial intelligence, if used in this way, represents a threat to human dignity.\textsuperscript{51} To conclude professor’s ideas in relation to the questions we have raised at the beginning of this chapter, in the present case he defined morality as an ability to have feelings of empathy, which cannot be attributed to artificial intelligence subjects. Moreover, morality in Weizenbaum’s opinion is relevant for granting advanced artificial intelligence subjects certain rights – particularly – a right to perform aforementioned jobs, because a lack of empathy will result other people being alienated, devalued and frustrated.\textsuperscript{52}

After 4 decades, the American lawyer and bioethicist, a Senior Fellow at the Discovery Institute's Center on Human Exceptionalism, professor Wesley J. Smith travelled even further – he indicated that no artificial intelligence could ever gain any rights – these subjects must be limited to a status of things. His main argument is that only humans are moral beings by nature and that artificial intelligence would have no such inherent characteristics. The law professor also added that even though the existence of soul in human beings is not yet proven, artificial intelligence surely does not possess one. More to that point, Wesley J. Smith explained that „we [humans] don’t just make decisions based on raw data and logic. We are moral agents, who sometimes refuse to do the logical thing because we consider it wrong. We are emotional beings. We are impulsive. We are risk takers. We are so much more than mere computers, which is how some anti-human exceptionalists like to describe us.”\textsuperscript{53} Concluding this researcher’s ideas and finding out, how they answer the questions at the beginning of this chapter, it can be said, that Wesley J. Smith defines morality as a refusal to do logical things in a situation, where a person considers these things wrong. The second and the third questions should be answered as following: artificial intelligence subjects can never be moral, and, yes, morality is relevant in order to grant legal capacity to the completely autonomous artificial intelligence subjects. Consequently, these subjects, in this professor’s opinion should never be given the aforementioned rights.

As an opposition to these arguments, the law professor of Georgetown university Lawrence B. Solum argues that such a stance, that no one else can be granted the same legal capacity as natural persons, is immoral itself. The professor makes a historical parallel and states that such an opinion is the same as stating that slaves do not have certain rights just because they are not white. (Solum, 1992, 2008) Solum also has a counter-argument to an idea about artificial intelligence systems not having souls. He argues that the statement „artificial intelligence systems do not have souls” is a religious and theological statement, which would fail in a legal area. Solum states that political and legal decisions must be justified on the grounds that are public. And public reason cannot rely on particular comprehensive religious or philosophical conceptions.\textsuperscript{54} These ideas lead to the conclusion, that Lawrence B. Solum would answer our raised questions, regarding morality, differently than professors mentioned before. Firstly, the researcher does not explicitly tell what is moral, he rather explains the immorality of not granting legal capacity to


\textsuperscript{52} Id.


\textsuperscript{54} Supra note 16.
the fully autonomous artificial intelligence subjects. He uses slavery as an example of immorality and equates it with the refusal to grant legal capacity to fully autonomous artificial intelligence subjects. Talking about the second question, the researcher is silent about machines’ ability to possess morality, however, he does not notice any reason to talk about it in terms of having soul, because for professor Lawrence B. Solum, it is merely a theological or a religious consideration, which would fail on the legal ground. Regarding the third question, the researcher, while speaking about slavery, implies that morality itself is relevant.55

THE ASPECT OF CONSCIOUSNESS

Starting with the definition, consciousness is merely „the state of being aware of and responsive to one’s surroundings“, as explained by The Oxford Dictionaries.56 It is also one of the necessary features for a person to be legally capable. Without being aware of the surroundings and being responsive to them, a person is either dead or incapable of participating in legal relations.

Speaking about the consciousness of artificial intelligence subjects, Wesley J. Smith questions it and gives a quote of Stanford physician and bioethicist William Harbult, which reads as follows: „Human consciousness is not mere computation. It is grounded in our full embodiment and intimately engaged with the neural apparatus associated with feeling and action.“.57 „In other words“, as Smith states, „human thought arises from a complex interaction of reason, emotion, abstract analysis, experience, memories, education, unconscious motivation, body chemistry, and so on. That can never be true of artificial intelligence robots. Even if an artificial intelligence machine were to attain unlimited processing capacities, it wouldn’t be sentient, just hyper-calculating.“58

Lawrence B. Solum has a response to these thoughts also. Firstly, the professor states, that if the consciousness is a product of brain, and processes of brain could be created, then it means that artificial intelligence might possess consciousness. Adding to that point, Solum also explains, that even if it turns out that only neurons in a human body can generate consciousness, there are still no guarantees that no legal rights and responsibilities should be prescribed to artificial intelligence. The professor gives an example of artificial intelligence subject, filing an action of emancipation, based on the thirteenth amendment of the US Constitution. Solum is convinced, that if the owner’s attorney would argue that artificial intelligence is only a machine and has no consciousness and the artificial intelligence would exercise the opposite position, the turnout can be very various. But in Solum’s opinion, the artificial intelligence should have an advantage in this situation, because another person lacks direct access into other subject’s brain. Artificial intelligence may have a different type of consciousness, but since the expression of the will is the same as one of a natural person’s, there is no reason, why rights and responsibilities

55 Id.
57 Supra note 53.
58 Id.
shouldn’t be granted to it\textsuperscript{59}. To illustrate that, the professor gives a charming example about every single person, cannot be able to prove for sure that one’s neighbour is not a zombie.\textsuperscript{60}

\section*{THE “OVERTAKING” ARGUMENT}

The argument explained and discussed in this chapter is the possibility of overtaking the control of the entire world by the fully autonomous artificial intelligence systems. The main idea is that if people are bound to manufacture other subjects, possessing the same or more advanced intellectual capabilities than humans, isn’t there a threat for the latter to cease being the dominant race on the Earth? 

The law professor of Vrije university of Amsterdam, Rob van den Hoven van Genderen states that such a danger exists and argues that granting legal capacity even to the most advanced artificial intelligence, might result in harmful consequences to the people. The professor explains: \text{"[i]t is essential that we, as natural human being[s], keep control over the system. We would not want to be confronted with autonomous systems, collecting all kind of personal information to be used for their own purposes? We are better to use our electronic or better technology based servants to assist us in the practical executions of our tasks. The more intelligent the system is the more trustworthy will be its functionality.\text{"}\textsuperscript{61}

Lawrence B. Solum, whatsoever, has a counter-argument even in this case. He calls the \text{"overtaking\text{"} argument \text{"the paranoid anthropocentric argument\text{"} and opposes it with the following thoughts. He indicates, that it is impossible to treat this argument seriously, because if there is a chance that some robotic technology might pose danger to humans, the only solution is not to manufacture robots at all. More to that point, Solum believes, that this danger is remote, and it shouldn’t be a criterion, which decides whether artificial intelligence should be granted legal capacity.\textsuperscript{62}

One of the most famous authors of the modern democratic transhumanist movement, PhD James Hughes takes a place between these quite radical views, mentioned in this sub-chapter before. He states that \text{"since the technologies will most likely not be stopped, democrats need to engage with them, articulate policies that maximize social benefits from the technologies, and find liberatory uses for the technologies. \text{"}\text{"} The mission of the Left is to assert democratic control and priorities over the development and implementation of technology.\text{"}\textsuperscript{63} It means, that Hughes talks about the control of technological advance, but on the other hand, he, as a democrat, finds it neccessary to solidarize with this possible minority as with other ones, living in the world

\textsuperscript{59} Or him. We are not yet aware whether to treat fully autonomous artificial intelligence subject as a thing or as a human being.

\textsuperscript{60} Supra note 53.


\textsuperscript{62} Supra note 16.

\textsuperscript{63} J. Hughes, „Democratic Transhumanism 2.0“, (2002), <http://www.changesurfer.com/Acad/DemocraticTranshumanism.htm>,
nowadays. He also uses a historical parallel and states as follows: „the posthuman future will be 
as threatening to unenhanced humans as gay rights or women’s liberation have been to patriarchs 
and homophobes, or immigrant rights to nativists. While libertarian transhumanists may 
imagine that they will be able to protect themselves if they are well-armed and have superior 
reflexes, they will be severely outnumbered. Nor is civil war an attractive outcome. Rather 
transhumanists must understand their continuity with the civil rights movements of the past and 
work to build coalitions with sexual, cultural, racial and religious minorities to protect liberal 
democracy. We need a strong democratic state that protects the right of avantgarde minorities to 
innovate and experiment with their own bodies and minds.”\textsuperscript{64}

To sum up, Hughes doesn’t envision the advancement of artificial intelligence as a 
threat and calls for a solidarization with these subjects. However, in his view, the control of this 
development should be concentrated in the hands of human beings.

\textbf{THE CRIMINAL LIABILITY OF FULLY AUTONOMOUS 
ARTIFICIAL INTELLIGENCE SUBJECTS}

The law professor of Georgetown university David C. Vladeck draws attention to the fact, 
that one day robots may be independent and not controlled by humans. In that situation, if 
artificial intelligence subject commits a crime, someone must be liable for the resulted damages 
and should be punished. The main question is – who? The professor puts up an open 
consideration: „if no one controls the robot, no other person is responsible for damages. So, 
wouldn’t it be fair, to punish the artificial intelligence subject?“\textsuperscript{65}

Gabriel Hallevy, the professor of high-tech law of the Ono Academic College in Israel, 
agrees with this thought and suggests that an artificial intelligence subject should be granted 
criminal liability if it can understand the actions he performs are against the law, existing in that 
particular country. Hallevy states that „when an artificial intelligence robot activates its electric 
or hydraulic arm and moves it, this might be considered an act, if the specific offense involves 
such an act. For example, in the specific offense of assault, such an electric or hydraulic 
movement of an artificial intelligence robot that hits a person standing nearby is considered as 
fulfilling the actus reus [external] requirement of the offense of assault. Attributing the internal 
element of offenses to artificial intelligence entities is the real legal challenge in most cases. 
Attributing the mental element differs from one artificial intelligence technology to the other. Most 
cognitive capabilities developed in modern artificial intelligence technology are immaterial 
to the question of the imposition of criminal liability. Creativity is a human feature that some 
animals possess, but creativity is a not a requirement for imposing criminal liability. Even the 
least creative persons are held criminally liable. The only mental requirements needed in order to 
impose criminal liability are knowledge, intent, negligence, etc., as required in the specific 
offense and under the general theory of criminal law.”\textsuperscript{66}

\textsuperscript{64} Id.
In this case, we might remember Wesley J. Smith’s argument about consciousness of artificial intelligence subjects, and raise a question: „Whether „a slave of algorithms“, as the professor has stated, can ever have his own consciousness?“ And if the answer is no, then Smith strictly implies, that no legal capacity can be possible to be granted to the artificial intelligence, including the criminal liability.57 Adding to that point, the main purpose of criminal law would be negated, because a person would not realise, why is he sentenced, and would be unable to correct his behaviour in the future.

Moreover, the philosopher of science and technologies Peter M. Asaro states his original thoughts about the liability of artificial intelligence: „[i]n the most straightforward sense, the law has a highly developed set of cases and principles that apply to product liability, and we can apply these to the treatment of robots as commercial products. As robots begin to approach more sophisticated human-like performances, it seems likely that they might be treated as quasi-agents or quasi-persons by the law, enjoying only partial rights and duties. A closely related concept will be that of diminished responsibility, in which agents are considered as being not fully responsible for their own actions.“68 The main idea of this quote is similar to the thoughts of Gabriel Hallevy regarding the fact, that a certain sophistication of artificial intelligence systems is required in order to impose criminal liability on them. However, Peter M. Asaro envisions the gradual increase of rights and responsibilities gained by artificial intelligence. And this increase would mainly depend on the development of an artificial entity – the more advanced it is, the more rights and responsibilities it gains. What is more, even though this author admits, that the opportunity of granting full legal personhood is possible, he finds this scenario as very distant and unclear. Peter M. Asaro indicates: „We saw in the previous section that it is more likely that we will treat robots as quasi-persons long before they achieve full personhood. “69

Moreover, the scholar's thoughts are in accordance with those of Wesley J. Smith, regarding the importance of morality, in this case – in the light of the artificial intelligence systems’ criminal liability.70 Peter M. Asaro believes that being a moral agent is necessary to be criminally liable: „Moral agency is deeply connected to our concepts of punishment. Moral agency might be defined in various ways, but it ultimately must serve as the subject who is punished. Without moral agency, there can be harm but not guilt. Thus, there is no debt incurred to society unless there is a moral agent to incur it – it is merely an accident and not a crime.„ The scholar also includes the aspect of deterrence – one of the main functions of criminal law, and discusses it in relation with the importance of morality. Asaro indicates that „deterrence only makes sense when moral agents recognize the similarity of their potential choices and actions to those of another moral agent who has been punished for the wrong choices and actions – without this reflexivity of choice by a moral agent, and recognition of similarity between moral agents, punishment cannot possibly result in deterrence. “71

67 Supra note 53.
69 Id.
70 Supra note 53.
71 Supra note 68.
CONCLUSIONS

1. Legal capacity, in scholars' opinions, could be essentially explained as an ability to possess certain rights and responsibilities, and the entities, who possess this capacity mainly have the features of: being a human(natural persons) or being operated by human(juridical persons); sentence; playing a social role; having independent interests; being alive.

2. Mainly these qualities, except, of course, being human or being operated by humans are believed to be found in fully autonomous artificial intelligence at present or in the near future. Fully autonomous artificial intelligence would be able to communicate, would be sentient and alive, have it's own independent interests, thus would be independent from human beings. Even though, the main characteristics of legal capacity, would be matched by artificial intelligence, there are more possible considerations, concerning the problem.

3. Various qualified law and robotics professors cannot find a consensus concerning the legal capacity of robots, even of those, which are fully autonomous. While speaking about morality, one category of researchers strictly argues, that morality is exclusively a feature of natural humans and, furthermore, is a main aspect of a legal capacity. Another group of researchers, in opposite, think that if an entity is intelligent enough, it would be immoral not to grant rights and responsibilities to this subject. The next object of disputes is consciousness. One segment of prominent professors state, that the machine, operated by algorithms could never be conscious and understand it’s actions and, because of that, shouldn’t gain legal capacity. Others respond that it is impossible to check the principles how the consciousness of the artificial intelligence works. And since this check is impossible, the behaviour of an artificial intelligence becomes the most important issue. Speaking about the possibility of artificial intelligence overtaking the humanity and using their advanced features for their own good, the opinions also differ. One part of researchers, precisely – Lawrence B. Solum, calls these thoughts as „paranoid antropocentric“ views. Finally, a very sensitive topic of criminal liability of fully autonomous subjects comes into place, and, ideas, supporting criminal liability of artificial intelligence are much less complicated to detect. Mainly because of the principle, that every crime must have it’s perpetrator and someone has to be punished for it. This principle, however, has a few exceptions. The most important one is that no person can be punished, if he doesn’t understand his actions, there are also opinions that morality is relevant for imposing criminal liability. Clearly, these are the difficult issues to solve, while speaking about criminal liability of highly advanced artificial intelligence, because there is a lack of knowledge regarding the morality and understanding abilities of artificial intelligence subjects.

4. It is clearly visible, that a question of criminal liability of artificial intelligence and legal capacity in general would be much easier to answer, if one would have
more information about the processes of thinking inside artificial intelligence subjects. However, even with the amount of information the humanity possesses at present, there is a wide spectrum of thoughts concerning this matter.

LIST OF SOURCES

31. United States Code: Art. 1, „Words denoting number, gender, and so forth“

SANTRAUKA

Dirbtinis intelektas yra novatoriškas išradimas, kurio svarba nuolat auga, dėl šių priežasčių, yra manoma, jog artimiausiu metu, dirbtinis intelektas pasiekis toki pavyzdį, kad jo intelektinės savybės nesiskyrins nuo tų, kurias turi žmogus, bet jas ir aplenkis. Paminėtina, jog dirbtinis intelektas neapsiribos vien tik žmogų pranokstančiomis savybėmis siauroje srityje, bet tarsi žmogus turės galimybę išmokti daugelio įvairių aspektų. Kas dar svarbiau, šie žmogaus kūrinių turės galimybę veikti esant sumažintai žmonių kontrolėi, arba nesant jokių kontrolės. Taigi, manoma, kad atsiras ir autonomiškų dirbtinio intelekto sistemų. Žinant tai, kokia pažanga yra prognozuojama minėtomis sistemoms, atsiranda būtinybė jas apibrėžti ir teisiškai. Ar šios sistemas gali būti pripažįstamos
teisės subjektu, jeigu jos veiks visiškai atskirai nuo žmogaus? Kadangi nė vienas dabartinis teisės subjektas neveikia atskirai nuo žmogaus: fiziniai asmenys ir yra žmonės, o juridiniai veikia per juos valdančius fizinius asmenis. Tačiau kita vertus, ar yra teisinga nesuteikti teisinio subjektiškumo sistemai, kurios dauguma savybių sutampa su suaugusio ir veiksnas žmogaus savybėmis? Tai yra klausimai, į kuriuos radus atsakymus, būtų suteiktas ir pagrindinis šio straipsnio klausimas – ar gali teisinis subjektiškumas būti suteiktas visiškai savarankiškam dirbtiniams intelektui?

Norint surasti atsakymą į pateiktą problemą, būtina atlikti keletą veiksmų. Pirmiausia, privalu išsiaiškinti, kokia yra teisinio subjektiškumo bendra samprata ir koks yra ją turinys, aptariant ir fizinius, ir juridinius asmenis, t.y. tuos, kuriems jau yra suteiktas teisinis subjektiškumas. Antra, reikia suvokti, kokios yra pagrindinės dirbtinio intelekto savybės, ir koks yra jo galimybų lygis. Trečia, būtina apibrėžti, ar dirbtinio intelekto savybės atitinka reikalavimus, keliaus asmeniui, kuris yra teisės subjektas. Galiausiai, privalu išsiaiškinti ir galimas teisinio subjektiškumo suteikimo dirbtiniam intelektui pasekmės ir grėsmės.

Visa tai aptariama šiame straipsnyje, ir tai aptars, siekiama prisidėti prie bendros sampratos apie dirbtinio intelekto teisinį subjektiškumą, kūrimo, taip pasitarnaujant ateities įstatymų leidėjams.