Artificial intelligence and human rights, with special reference to self-driving vehicles

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ABSTRACT

As the technology develops, we are moving towards the creation of fully self-driving vehicles. Not only the technical but also the legal conditions must be in place. Both in civil and criminal law, a completely new approach to legislation is needed in order to regulate this situation, which is quite different from the general situation. Human rights must also be taken into account. The study examined the difficulties of introducing self-driving vehicles from the perspective of fundamental rights as enshrined in the European Convention on Human Rights. It can be concluded that self-driving vehicles (or the accidents they cause, the events they record, etc.) may affect a number of human rights (right to life, right to a fair trial, prohibition of punishment without legal provision, right to respect for private and family life, freedom of discrimination, freedom of movement). Nevertheless, prudent legislation can solve the problems.

Keywords: artificial intelligence, weak artificial intelligence, strong artificial intelligence, self-driving cars, human rights

INTRODUCTION

Relevance of the topic. In the scientific literature, a distinction is made between "weak AI" (a machine that behaves intelligently only in a very specific area) and "strong AI". The latter no longer simulates human thinking but is itself a mind (Moreno, 2021). "Weak AI" can also evolve and learn, but only according to the task profile assigned to it. Most AI systems are "weak AI". These are usually rule-based programs, so you can't realistically talk about intelligence. They work on the basis of so-called "if-then" statements. To do this, the necessary knowledge base (data set) has to be created manually, which can be extremely tedious. The quantum leap in AI research, according to Scherer, came with the so-called "dataquake", the emergence of massive amounts of data (Scherer, 2019).

The problem. Therefore, "weak AI" is essentially a great help, in that it can process and communicate the results of the databases at its disposal, which are often unmanageable for humans, in a very short time.

There is no sharp line between "weak AI" and "strong AI". For this reason, a concept of "moderate AI" has also appeared in the scientific literature, which represents a higher level of AI than algorithmic processing but does not yet reach the ability to solve complex problems autonomously (Sushina, 2020). Instances of "strong AI" in the table can be said to be more accurately described as "moderate AI".

However, the evolution from "weak AI" to "strong AI" is clearly visible. Suffice it to say that while IBM's Deep Blue machine beat world chess champion Garry Kasparov in 1997 by feeding in almost all the moves of his previous (relevant) chess games, the AlphaGo developed by Google beat the current

world go champion in 2015, even though Go is a much more complex game and cannot be fed in an almost infinite number of move variations. Not to mention IBM's Watson machine (which is not a machine, but an AI system), which can now solve more complex language tasks, not only reproducing the data it is fed but also doing creative "thinking" (Ambrus, 2020).

Objective: To identify the relationship between artificial intelligence and human rights, especially regarding self-driving vehicles. As mentioned earlier, self-driving vehicles are a very important manifestation of physical AI. In our study, we will look at the relationship between self-driving vehicles and human rights, which are also already addressed.

The European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR), signed in Rome on 4 November 1950, and its eight additional protocols, regulate a wide range of human rights. Among these, the following may be more closely or more broadly related to self-driving vehicles: a) the right to life; b) the right to a fair trial; c) the prohibition on punishing without due process of law; d) the right to respect for private and family life; e) freedom of expression; f) the prohibition of discrimination; g) freedom of movement.

For reasons of limited scope, the study does not address other human rights (fundamental rights with a human rights dimension), although there are several such rights that could be affected by the introduction of self-driving vehicles. In the literature, this includes, for example, the rights to personal security and cybersecurity (Iwan, 2019). Altunyaldiz (2020) regarding the latter, points out that fully self-driving vehicles could be a breeding ground for hackers who could potentially take control of the vehicle (e.g. Bluetooth, keyless entry systems, mobile or other connections), but the hacked data could also be financially valuable to hackers, as it could be sold to third parties.

THE RIGHT TO LIFE

According to Article 2 ECHR, the law protects everyone's right to life, and no one shall be intentionally deprived of his or her life.

Violation of the right to life in relation to self-driving vehicles may arise primarily when the accident caused by the self-driving vehicle has a fatal outcome. Like conventional motor vehicles, self-driving vehicles can cause accidents. Even now, before the advent of completely self-driving vehicles, there are numerous reports of accidents involving vehicles that are not completely self-driving (usually up to level 3). Although, contrary to popular belief, in most (perhaps almost all) cases it has been established through criminal prosecution that the self-driving vehicle (or its driver) was not responsible for the accident, these cases also highlight the specific issues of the right to life in relation to self-driving vehicles.

The problems of who the self-driving vehicle should choose to hit: a little child or two elderly people? Two pedestrians who are driving in the wrong direction or one who is driving lawfully on the pavement? etc., also arise in everyday driving. However, while the responsibility of the ordinary driver depends on whether he has broken the rules himself (no moral issues are raised), self-driving vehicles must be pre-programmed to deal with such situations (as they cannot think), and it is a much more difficult question of what to program the vehicle to do. If the driver of a conventional vehicle pulls the steering wheel out of the way because of a pedestrian in front of him/her, drives onto the pavement and hits a pedestrian, he/she will not be held responsible for his actions, as he/she was trying to save the life of the pedestrian crossing the road and cannot be expected to assess the consequences. If the same situation arises in a self-driving vehicle, where sensors detect that a pedestrian would be hit by the vehicle if the vehicle were to avoid a person moving in a lawful manner, the self-driving vehicle must be programmed to resolve this dilemma. And the question here is what should be the content of the pre-programming in each case? Unlike humans, who in an emergency lack the ability and time to add and quantify the utility in question, self-driving vehicles can in many cases make these calculations and provide reliable answers in a matter of moments (Coca-Vila, 2017).

When programming a self-driving vehicle, social interests must be considered (to minimize

harmful outcomes). However, a car that puts social interests ahead of the interests of its occupant, according to Coca-Vila, no one will buy (Coca-Vila, 2017). Cappellini also points out the same: if in exceptional situations the car "scarifies" its passenger, this could lead to "commercial sabotage" of these products (Cappellini, 2019). So, if the self-driving vehicle can only save the life of its passenger by going down into the emergency lane where it hits two little children who die, it should be programmed to swerve because we are dealing with equal interests (Coca-Vila, 2017).

At the same time, society would not accept a self-driving car (and thus would not get much of a license) that is programmed to put the life (or physical safety) of its passenger first at all costs. As I mentioned, these problematic life situations arise for the conventional driver, it's just a different question of how he or she makes decisions in an emergency, and how a car should be pre-programmed to make decisions in such situations.

According to Coca-Vila, a quantitative aggregation of lives does not change the comparative value of one of them (the prohibition of addition), nor can it justify the difference in ranking of the lives of two people (the prohibition of gradualism). In other words, not only is the life of the elderly person in need the same as that of the most recent Nobel laureate, but one human life is worth the same as one hundred (Coca-Vila, 2017).

In the case of a conflict between equivalent obligations, most of the literature always holds that the duty to omit takes precedence over the act. In other words, if a pedestrian steps onto the road in an irregular manner and his/her life can only be saved by stopping with an emergency brake, but in this case, the motorcyclist behind him, who did not keep the following distance, dies, then one should not brake (act), because the one who can be saved by omission (and not the one who can be saved by action) takes precedence over the two irregularities (Küper, 1979). Zimmermann also prefers passive to active behavior, since he believes that the legal system generally favors the maintenance of the status quo (Zimmermann, 2009). Coca-Vila, however, points out that it is not always possible to say in general that omission takes precedence over action. That is why, in his view, whatever the car decides in such a situation is legitimate (Coca-Vila, 2017). Weigend also argues that there is a choice between action and inaction.

THE RIGHT TO A FAIR TRIAL

The right to a fair trial under Article 6 ECHR may raise interesting questions in relation to self-driving vehicles. Article 6 itself can clearly only be interpreted in relation to a natural person, but in the light of some theories of criminal liability for offences committed by self-driving vehicles, it is not so abstract.

If the level of automation of the self-driving vehicle is low (level 2 or less), the traditional liability system should be considered, as the vehicle does not drive but only provides driving assistance. In other words, at these levels, the responsibility is almost always that of the driver (unless it can be demonstrated that the cause of the accident is attributable to someone else, e.g. if the car was returned from the workshop without the nuts on the wheels being properly tightened, the mechanic could be held responsible). As automation increases (from level 3), the driver's activity becomes more and more that of observation, without the need for active intervention for long periods of time. For level 4 self-driving vehicles, a partial discharge of responsibility for the driver (passenger) may be justified, while for level 5 he/she cannot be held responsible, since he/she could not intervene even if he/she wanted to (unless the possibility of a "stop button" is created).

So, for level 4 and especially level 5, if the passenger (user) is not responsible, who or what is? In this case, the responsibility of the manufacturer, the programmer, the owner/operator and even, according to some specific notions, the car itself, all digital persons, may arise. If it is the manufacturer (programmer, owner/operator) who is responsible, then the provisions of Article 6 ECHR (their right to a fair trial, i.e. to a fair and public hearing by an independent and impartial tribunal within a reasonable time, the presumption of innocence, etc.) can be interpreted in their respect. On reflection, these rights can also be enforced if the legislation reaches the stage where the self-driving vehicle itself is liable for

an accident caused by the self-driving vehicle (under a specific liability regime). After all, if the vehicle is held liable, it is also entitled to a fair, public trial within a reasonable time, an independent and impartial tribunal and even the presumption of innocence.

THE PROHIBITION ON PUNISHING WITHOUT DUE PROCESS OF LAW

Article 7 of the ECHR provides that no one shall be held guilty of an act or omission which, at the time when it was committed, did not constitute a criminal offence under national or international law (*nullum crimen sine lege*) and that no heavier penalty may be imposed than that applicable at the time when the offence was committed (*nulla poena sine lege*).

The provisions of this Article may also be of particular interest to our topic if the legislation reaches the stage where the self-driving vehicle itself is liable for the offence committed by the self-driving vehicle. In the Japanese literature, the concept of a "digital person" has been proposed, which could transform or simplify the system of liability for acts caused by self-driving cars (and robots in general) (URL1, 113). A similar view is expressed by Altunyaldiz, who argues that if the Level 5 vehicles appear, new criminal offences could potentially be created which could raise the question of whether the AI responsible for driving the vehicle could be held criminally liable, possibly as a "legal person" (Altunyaldiz, 2020). The criminal liability of cars is also examined by Seher, who calls "intelligent agents" ("intelligenten Agenten") "robots", "machines" or "software agents" that are programmed to combine and evaluate the information they receive in some way for future reactions. Since these reactions are not entirely determined by programming, the actions of the "intelligent agent" are "open" in advance, not mapped in advance to individual cases (Seher, 2016).

The ability to respond to legal norms is a prerequisite for acting in a legally relevant way. Thus, "intelligent agents" could only be recipients of the law (and thus legal persons) if they were able to understand the commands in the norms themselves and incorporate them into their reactions. In the foreseeable future, however, "intelligent agents" are likely to lack the "understanding" of norms as commands, since these "intelligent agents" will operate solely on the basis of previously-installed programming, without grasping legal norms in their own autonomous way (Seher, 2016, 50), and will therefore remain responsible, either partially or jointly, for the producer, owner/operator or user (Gless and Weigend, 2014) According to Seher, the interesting case is not when there is a programming error (in which case liability may be clear), but when the "intelligent agent" has caused harm based on supposedly correct programming (Seher, 2016, 52). If the operation of "intelligent agents" is regulated by a licensing procedure, then operators are exempt from punishment, if they have a specific license and comply with administrative rules in their operation. From a criminal law perspective (in addition to intentionality), it may be relevant (in terms of negligence) when the designer or user has overlooked something in the programming or operation, or the operation of the device exceeds the authorized risk due to inattention (Seher, 2016).

Applied to "intelligent agents", the question arises whether their harmful actions are considered by the community as an attack on legal norms? The answer to this is no, as long as robots, drones and self-driving cars are considered "things". Nor can "intelligent agents" be punished. The retributive theory holds that punishment is a way of compensating for the injustice done by the perpetrator and thus remedying the lack of justice. But is punishing the "intelligent agent" an appropriate retribution? (Seher, 2016) According to Gless and Weigend, even the destruction of the "intelligent agent" i.e. the "quasi-death penalty" would not give the victims' families a sense that justice has been restored (Gless & Weigend, 2014). Nor can special prevention goals be applied to "intelligent agents" according to Seher, because they are unaware that they are being punished. Only a person with explicit emotions can experience criminal sanctions. Anyone ("anything") who (that) does not perceive the normal order as a pressure to control action cannot understand the punishment and cannot appreciate the sanction, thus the purpose of the punishment cannot be realized (Seher, 2016).

At the same time, artificial intelligence controlling a self-driving vehicle cannot only work based

on fully pre-programmed algorithms preset by humans, because too many variables would have to be considered to instruct the machine to the "right" behavior to be applied in all possible road and traffic situations, so enabling machine learning is inevitable (Cappellini, 2019). Thus, while in the case of current self-driving vehicles (up to level 3), the driver is at least negligent for the accidents caused, in the case of level 4, and especially level 5 self-driving vehicles, there may be a "liability gap", since culpability or *mens rea* is crucial in European criminal law systems and difficult to interpret for a machine (Altunyaldiz, 2020).

THE RIGHT TO RESPECT FOR PRIVATE AND FAMILY LIFE

Under Article 8 ECHR, everyone has the right to respect his private and family life, his home and his correspondence. According to Glancy, self-driving vehicles can affect privacy in three main ways: personal privacy, information privacy and surveillance (Glancy, 2012).

Recently, an Uber driver busted an unfaithful husband and posted a video of the incident on Tik-Tok, causing a stir online. In the video, a woman from Dallas named Roni describes how she busted one of her passengers in front of her family. The driver says she witnessed the man kissing his wife and hugging his children before getting in the car with her. The husband got into the car and indicated that he had added another stop and asked Roni to go to the new address. At the newly added address, a woman got on with a small suitcase and kissed the man. "I'm so glad you finally got rid of your damn wife," the new passenger said afterwards, and started kissing the man in the back seat. She then started to complain that he was always shaking her off and asked when he was going to leave his family, to which he apologetically said that they would discuss it later. That's when the Uber driver intervened. As they were only about 5 miles from the starting point, Roni decided to turn around and simply dropped the unfaithful husband and his mistress off at the husband's house, leaving them with luggage on both the husband and his mistress. Her act of hubris sparked controversy (51,000 comments), some praising her, others saying she had nothing to do with the privacy of her passengers (URL2).

The video was downloaded 8.3 million times in five days, which means it received a huge amount of publicity. It is easy to see how a system equipped with cameras that record the movements of the self-driving car and its surroundings around the clock (even when stationary) could very easily cause similar problems. It could be very useful for self-driving vehicles on the road to record everything, not only to provide direct evidence of accidents in which they themselves are involved, but also (because they record everything) to help detect other crimes. A car camera on the road can pick up bank robbers running out of the bank and getting into the car during the bank robbery that was taking place, but by comparing the camera footage of individual self-driving vehicles, it can track the movements of anyone, even if each car only detects a person or vehicle for certain stretches. However, these recordings may also contain information that is already invasive of someone else's privacy. It is easy to see from the camera footage, as in the example above, that the unfaithful husband was at his mistress's house instead of at work, but in general, any footage may violate the constitutional, human right to privacy. There is clearly no way to ensure that these recordings are edited out wherever there are details not relevant to the case, but there is a way to ensure that they are only made public in exceptional and justified cases. Iwan argues that the most important thing is that individuals should be able to determine the scope of the data that is disclosed to and shared with others, including whether it can be shared, for example, for commercial purposes, as social networking sites and search engines do today, often without our explicit consent (Iwan, 2019).

The other two privacy issues (data protection, and surveillance) deserve more detailed analysis. Here, I would only refer to the fact that, in the context of data protection, Iwan highlights the right to anonymity (Iwan, 2019), and Altunyaldiz highlights the most important issues related to data protection (Altunyaldiz, 2020):

- what type of information is collected?
- for what purpose is the information collected?

- who controls and has access to this information?
- how long is this information stored?
- should the data recorded by self-driving vehicles be automatically shared and, if so, with whom (central system, insurance companies, police, etc.)?

Vehicle observations can provide a wealth of useful data. Among these, Iwan highlights data on speed, location, passengers and driver behavior, which may be of relevance not only for criminal but also for civil liability (Iwan, 2019). At the same time, these activities should be subject to ongoing legal restrictions (see General Data Protection Regulation (EU) 2016/679 of the European Parliament and the Council on the protection of natural persons concerning the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC).

FREEDOM OF EXPRESSION

Article 10 ECHR regulates freedom of expression. This right includes the freedom to impart information and ideas regardless of frontiers and without interference by public authority. This, therefore, adds to the question analyzed in the previous point: although everyone has the right to privacy, they also have the right to communicate the information they have come across. However, it is easy to see that, in the event of competition between the two rights, the former takes precedence.

THE PROHIBITION OF DISCRIMINATION

From a programming point of view, if there is a choice between consequences of similar weight, in the case of a self-driving vehicle, there are, according to many, two possibilities: the programmer (or the user) determines the resolution of conflicts in advance through a subjective decision, or the car is programmed to draw lots to decide whose life takes precedence (Coca-Vila, 2017). The pull (random decision) is also the right solution in such cases because it excludes the violation of the prohibition of discrimination as laid down in Article 14 ECHR, i.e. discrimination on grounds not permitted (age, sex, religion, color, etc.). Eisenberger explicitly refers to Articles 2 and 14 of the European Convention on Human Rights, according to which no distinction can be made based on the aforementioned subjective characteristics (Eisenberger, 2017, 104–105). And according to Weigend, the car cannot be programmed in any circumstances to choose in advance whom to kill (or even to kill anyone), so in some cases it will inevitably be in a situation of conflict if someone has to die anyway (Weigend, 2017).

FREEDOM OF MOVEMENT

Finally, mention should also be made of the right contained in Article 2 of the Fourth Additional Protocol to the ECHR on certain rights and freedoms additional to those already included in the Convention and the First Additional Protocol. According to the human right to freedom of movement, all persons lawfully resident in the territory of a State enjoy freedom of movement and residence and are free to leave any country, including their own.

This human right can also be interpreted in relation to self-driving vehicles. The general concern about self-driving vehicles makes it more difficult than easy to place this type of car on the market. According to Cappellini, it will be a long process to get to fully self-driving cars. But as fully traditional cars are replaced (have been replaced) by driver-necessary cars (emergence of power steering, lane-keepers, etc.), more advanced cars will be introduced in the future (Cappellini, 2019). Takeo argues that the introduction of fully self-driving vehicles is conditional on the application of the principle of trust to self-driving technology, and that there is a societal trust in the "proper behavior of machines" (URL1,

101). Once this is achieved, the question of the rights and obligations of this type of car will arise. And while a machine may never have "human rights", some human rights can be applied to it, with the right interpretation.

CONCLUSIONS

It is an indisputable fact that vehicle assistance systems promote safe driving and make drivers' lives much easier. This is true even if there are many cases where the fault of the driver assistance system is the cause of an accident.

As the technology develops, we are moving towards the creation of fully self-driving vehicles (level 5). However, not only the technical but also the legal conditions must be in place. Both in civil and criminal law, a completely new approach to legislation is needed in order to regulate this situation, which is quite different from the general situation. Human rights must also be taken into account in this legislation. The study examined the difficulties of introducing self-driving vehicles from the perspective of fundamental rights as enshrined in the European Convention on Human Rights. It can be concluded that self-driving vehicles (or the accidents they cause, the events they record, etc.) may affect a number of human rights (right to life, right to a fair trial, prohibition of punishment without legal provision, right to respect for private and family life, freedom of expression, prohibition of discrimination, freedom of movement). Nevertheless, prudent legislation can solve the problems outlined above.

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The European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR), signed in Rome on 4 November 1950, and its eight additional protocols, regulate a wide range of human rights. Among these, the following may be more closely or more broadly related to self-driving vehicles: a) the right to life; b) the right to a fair trial; c) the prohibition on punishing without due process of law; d) the right to respect for private and family life; e) freedom of expression; f) the prohibition of discrimination; g) freedom of movement.

For reasons of limited scope, the study does not address other human rights (fundamental rights with a human rights dimension), although there are several such rights that could be affected by the introduction of self-driving vehicles. In the literature, this includes, for example, the rights to personal security and cybersecurity (Iwan, 2019). Altunyaldiz (2020) regarding the latter, Altunyaldiz points out that fully self-driving vehicles could be a breeding ground for hackers who could potentially take control of the vehicle (e.g. Bluetooth, keyless entry systems, mobile or other connections), but the hacked data could also be financially valuable to hackers, as it could be sold to third parties.

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Dirbtinis intelektas ir žmogaus teisės, ypač kalbant apie savarankiškai vairuojančias transporto priemones

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Temos aktualumas. Mokslinėje literatūroje skiriamas „silpnas AI" (mašina, kuri protingai elgiasi tik labai specifinėje srityje) ir „stiprus AI". Pastarasis jau nebesimituoja žmogaus mąstymo, bet pats yra protas (Moreno, 2021). „Silpnas AI" taip pat gali vystytis ir mokytis, bet tik pagal jam priskirtą užduočių profilį. Dauguma AI sistemų yra „silpnas AI". Paprastai tai yra taisyklėmis pagrįstos programos, todėl realiai negalima kalbėti apie intelektą. Jie dirba vadinamųjų „jei-tada" teiginių pagrindu. Tam reikia rankiniu būdu sukurti reikiamą žinių bazę (duomenų rinkinį), o tai gali būti labai varginantis darbas. Kvantinis dirbtinio intelekto tyrimų šuolis, pasak Schererio (2019), atsirado dėl vadinamojo „duomenų drebėjimo", didžiulio duomenų kiekio atsiradimo.

Problema. „Silpnas AI" iš esmės labai padeda, nes per labai trumpą laiką gali apdoroti ir perduoti turimų duomenų bazių, kurios dažnai žmonių nevaldomos, rezultatus.

Nėra ryškios ribos tarp „silpno AI" ir „stipraus AI". Dėl šios priežasties mokslinėje literatūroje taip pat atsirado „vidutinio AI" sąvoka, kuri reiškia aukštesnį dirbtinio intelekto lygį nei algoritminis apdorojimas, tačiau dar negali savarankiškai spręsti sudėtingų problemų (Sushina, 2020). Lentelėje esantys „stipraus AI" atvejai gali būti tiksliau apibūdinti kaip „vidutinio sunkumo AI".

Tačiau evoliucija nuo „silpno AI" iki „stipraus AI" yra aiškiai matoma. Pakanka pasakyti, kad nors IBM „Deep Blue" mašina 1997 m. įveikė pasaulio šachmatų čempioną Garį Kasparovą, maitindama beveik visus ankstesnių (susijusių) šachmatų partijų ėjimus, „Google" sukurta „AlphaGo" įveikė dabartinį pasaulio šachmatų čempioną 2015 m. Go yra daug sudėtingesnis žaidimas ir jo negalima maitinti beveik begaliniu judesių skaičiumi. Jau nekalbant apie IBM „Watson" mašiną (kuri yra ne mašina, o AI sistema), kuri dabar gali išspręsti sudėtingesnes kalbos užduotis, ne tik atkurdama gaunamus duomenis, bet ir atlikdama kūrybinį „mąstymą" (Ambrus, 2020).

Tikslas. Nustatyti ryšį tarp dirbtinio intelekto ir žmogaus teisių, ypač kalbant apie savarankiškai vairuojančias transporto priemones. Kaip minėta, savarankiškai važiuojančios transporto priemonės yra labai svarbi fizinio dirbtinio intelekto apraiška. Savo tyrime apžvelgsime savarankiškų transporto priemonių ir žmogaus teisių santykį, kuris taip pat jau sprendžiamas.

1950 m. lapkričio 4 d. Romoje pasirašyta Europos žmogaus teisių ir pagrindinių laisvių apsaugos konvencija (EŽTK) ir jos aštuoni papildomi protokolai reglamentuoja daugybę žmogaus teisių. Tarp jų gali būti glaudžiau arba plačiau susijusių su savaeigėmis transporto priemonėmis: a) teisė į gyvybę; b) teisė į teisingą bylos nagrinėjimą; c) draudimas bausti be tinkamo proceso; d) teisė į privataus ir šeimos gyvenimo gerbimą; e) saviraiškos laisvė; f) diskriminacijos draudimas; g) judėjimo laisvė.

Dėl ribotos apimties tyrime nenagrinėjamos kitos žmogaus teisės (pagrindinės teisės, turinčios žmogaus teisių aspektą), nors yra keletas tokių, kurioms gali turėti įtakos savarankiškai vairuojančių transporto priemonių įdiegimas. Literatūroje tai apima, pavyzdžiui, teises į asmeninį saugumą ir kibernetinį saugumą (Iwan, 2019). Kalbant apie pastarąjį, Altunyaldiz (2020) pažymi, kad visiškai savarankiškos transporto priemonės galėtų būti palanki terpė įsilaužėliams, kurie potencialiai galėtų perimti transporto priemonės valdymą (pvz., „Bluetooth", beraktės įvesties sistemos, mobilusis ar kiti ryšiai), tačiau nulaužti duomenis taip pat gali būti finansiškai naudinga įsilaužėliams, nes gali būti parduoti trečiosioms šalims.

Raktiniai žodžiai: dirbtinis intelektas, silpnas dirbtinis intelektas, stiprus dirbtinis intelektas, savarankiškai važiuojantys automobiliai, žmogaus teisės.

SANTRAUKA

Tobulėjant technologijoms, judame link visiškai savaeigių transporto priemonių kūrimo. Turi būti sudarytos ne tik techninės, bet ir teisinės sąlygos. Tiek civilinėje, tiek baudžiamojoje teisėje reikalingas visiškai naujas požiūris į teisės aktus, kad būtų galima sureguliuoti šią situaciją, kuri gerokai skiriasi nuo bendros situacijos. Taip pat reikia atsižvelgti į žmogaus teises. Tyrime buvo nagrinėjami sunkumai diegiant savarankiškas transporto priemones pagrindinių teisių, įtvirtintų Europos žmogaus teisių konvencijoje, požiūriu. Darytina išvada, kad savaeigės transporto priemonės (ar jų sukeliami nelaimingi atsitikimai, užfiksuoti įvykiai ir pan.) gali turėti įtakos daugeliui žmogaus teisių (teisė į gyvybę, teisė į teisingą bylos nagrinėjimą, draudimas bausti be įstatymo nuostatų, pagarba asmeniniam ir šeimos gyvenimui, diskriminacijos laisvė, judėjimo laisvė). Nepaisant to, apdairiai taikant teisės aktus galima išspręsti šias problemas.

Raktiniai žodžiai: dirbtinis intelektas, silpnas dirbtinis intelektas, stiprus dirbtinis intelektas, savarankiškai važiuojantys automobiliai, žmogaus teisės.