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AI-BASED DECISIONS AND DISAPPEARANCE OF LAW

by

YULIA RAZMETAEVA, NATALIA SATOKHINA*

Based on the philosophy of responsibility, the article examines, using the example of AI-based decisions, how the concept of responsibility changes under the influence of artificial intelligence, what unintended effect this conceptual shift has on our moral experience overall, and what implications it has for law. The problem of AI-based decisions illustrates well the general trend towards the transformation of the concept of responsibility, which consists in replacing personal responsibility with a system of collective insurance against risks. The disappearance of the capacity for responsibility from the structure of our experience, in turn, makes justice and law impossible.

KEY WORDS

Artificial Intelligence, AI-based Decisions, Responsibility, Experience of Law, Paul Ricoeur

1. INTRODUCTION

The last decade has seen an unprecedented growth of AI technologies, penetrating each and every aspect of our life from shopping to healthcare to driving your car. Each and every decision that people make seems to be prompted by AI, either indirectly (by influencing your choices) or directly (through decision-taking algorithms). According to Mireille Hildebrandt "*we are invited to learn to deal with an artificial world, 'peopled' by myriad of artificial agents that are becoming more and more smart and unpredictable*".[1] Whoever takes the decision may and will be held accountable for its consequences. If and when the decision is made by the algorithm,

* yulia.razmetaeva@gmail.com, nataliasatokhina@gmail.com, Department of Theory and Philosophy of Law, Yaroslav Mudryi National Law University, Kharkiv, Ukraine.

1 Hildebrandt, M. (2015) *Smart Technologies and The End(S) Of Law: Novel Entanglements of Law and Technology*. Cheltenham: Edward Elgar Publishing, p. ix.

the problem of accountability becomes acute and even irresolvable under the current law.

The issue of responsibility for AI-based decisions is widely discussed in the legal literature;[2] however, jurisprudence itself cannot offer a satisfactory solution here. It seems that in this case it is necessary to place the problem in a broader context. In particular, we propose to consider the issue of responsibility for AI decisions as part of a general trend towards the transformation of our understanding of responsibility and the corresponding moral experience, which consists in replacing personal responsibility with a system of collective insurance against risks. To do this, let us turn to the philosophy of responsibility, mainly the ideas of the French philosopher Paul Ricoeur.[3]

A more profound look at the phenomenon of responsibility enables us to single out its three components: the imputation of an action to its culprit, the retribution for the action and the compensation for the harm caused.[4] However, the example of AI-based decisions shows how the modern view on responsibility is reduced to a mere compensation for harm, excluding the imputation of an action to its culprit and retribution for the deed from the notion of responsibility. The latter is becoming more and more problematic as we can no longer determine with certainty: 1) who the culprit is and what exactly they should be blamed for, 2) what should be

[2] See: Brown, R. D. (2021) Property Ownership and the Legal Personhood of Artificial Intelligence. *Information & Communications Technology Law*, 30 (2), pp. 208-234. Available from: https://doi.org/10.1080/13600834.2020.1861714; Chen, J. and Burgess, P. (2019) The Boundaries of Legal Personhood: How Spontaneous Intelligence Can Problematise Differences between Humans, Artificial Intelligence, Companies and Animals. *Artificial Intelligence and Law*, 27, pp. 73–92. Available from: https://doi.org/10.1007/s10506-018-9229-x; Cofone, I. (2019) Algorithmic Discrimination Is an Information Problem. *Hastings Law Journal*, 70, pp. 1389-1444; Elish, M. (2019) Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction. *Engaging Science, Technology, and Society*, 5, pp. 40-60. Available from: https://doi.org/10.17351/ests2019.260; Floridi, L. (2021) The European Legislation on AI: A Brief Analysis of Its Philosophical Approach. *Philosophy & Technology*. Jun:1-8. Available from: https://doi.org/10.1007/s13347-021-00460-9; Hartmann, K. and Wenzelburger, G. (2021) Uncertainty, Risk and the Use of Algorithms in Policy Decisions: A Case Study on Criminal Justice in the USA. *Policy Sciences*, 54, pp. 269–287. Available from: https://doi.org/10.1007/s11077-020-09414-y; Gowder, P. (2018) Transformative Legal Technology and the Rule of Law. *University of Toronto Law Journa*l, 68, pp. 82-105. Available from: https://doi.org/10.3138/utlj.2017-0047; Jarota, M. (2021) Artificial Intelligence and Robotisation in the EU – Should We Change OHS Law? *Journal of Occupational Medicine and Toxicology*, 16, 18. Available from: https://doi.org/10.1186/s12995-021-00301-7; Sharkey, A. (2017) Can We Program or Train Robots to Be Good? *Ethics and Information Technology*. Available from: https://doi.org/10.1007/s10676-017-9425-5.

[3] For the philosophy of responsibility in general see for example: Jonas, H. (1985) *The Imperative of Responsibility: In Search of an Ethics for the Technological Age.* Chicago and London: The University of Chicago Press; Apel, K.-O. (1990) *Diskurs und Verantwortung: Das Problem des Übergangs zur postkonventionellen Moral*. Suhrkamp Verlag; Ricoeur, P. (2000) The *Just*. Chicago and London: The University of Chicago Press, pp. 11-35; Баумейстер, А. (2009) Imputatio. У: *Європейський словник філософій: Лексикон неперекладностей*. Т. 1. Київ: *Дух і літера*, сс. 485-497.

[4] Ricoeur, P. (2000) *The Just*. Chicago and London: The University of Chicago Press, pp. 11-35.

the adequate retribution for the act, and 3) what damage is compensable. Since responsibility is an integral part of law, the erosion of the concept of responsibility leads to a gradual disappearance of law from our life and its replacement by relationships of a completely different nature.

The edifice built upon these key elements is ruined when we deal with AI-based decisions as it becomes next to impossible to identify the culprit, since the rules applied to subjects of law are hardly applicable here. In the first place, even the most advanced AI has not yet been recognized as the subject of law. There have been some cautious attempts to do so or, at least, to leave room for interpretation that doesn't exclude subjectivity, for example, regarding copyright[5]. Such attempts are not an adequate solution to the problem since an algorithm cannot be regarded in terms of the conventional legal structures and cannot be seen as either of the traditional legal subjects: a natural person, a legal entity, a state, an international organization, etc. Besides, when investigating cases involving AI, identifying the culprit becomes next to impossible. In, say, a road accident caused by a self-driving car, is it the coding team behind the algorithm – which may consist of dozens of people, – the owners of the algorithm, or the company that produced the car – that should be held responsible? The deep neural network that offers an "automatic prediction of deterioration risks" in COVID-19 patients and prompts decisions for the clinicians[6] could probably not be considered a party – at least under the existing law – should the decision thus prompted lead to a fatality. An entirely different approach is needed, reconsidering our core beliefs as to what justice and responsibility are. This will make it possible to avoid the disappearance of law and prevent it from being substituted by a mere system of risks. Here, we attempt to showcase the possible outcomes of the present situation if left unchanged.

Based on the philosophical account of responsibility, we examine, using the example of AI-based decisions, how the concept of responsibility changes under the influence of AI, the unintended effect this conceptual shift has on our moral experience in general, and the consequences it has for law as an integral aspect of our existence. For this purpose, we are

[5] For example, in the case of a "literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken". See: Copyright, Designs and Patents Act of United Kingdom (1988). Available from: https://www.legislation.gov.uk/ukpga/1988/48 [Accessed 27 June 2021], 9(3).

[6] Shamout, F. E. et al. (2021) An Artificial Intelligence System for Predicting the Deterioration of COVID-19 Patients in the Emergency Department. npj Digit. Med. 4, 80. Available from: https://doi.org/10.1038/s41746-021-00453-0.

addressing the benefits and risks that stem from AI's decision making and the extent to which they can affect freedom, justice and the rule of law (part 2). We also observe the concept of responsibility changing in the modern world (part 3) and consider problems connected with the subject of responsibility (part 4). Besides, we look into the conventional understanding and limits of compensation for harm (part 5) and hypothesize about what consequences it has for law (part 6). Finally, using the EU law as an example, we investigate whether the existing legal framework is capable of preventing the loss of law without changing the conceptual approach (part 7).

2. ARTIFICIAL INTELLIGENCE IN DECISION MAKING

The spread of AI and AI-based decisions in all spheres of life is an inevitable and natural way of technological development, rather than a conscious value-based choice. It's a genie let out of the bottle, and chances are the genie will be ruling our reality. Harnessing the genie and making it serve us rather than enslave us (without us even being aware) is the purpose of today.

In taking decisions, algorithms appear to be able to far outdo humans. Algorithms are seemingly free from human error caused by emotions and/or physiology. It cannot be tired or angry. You would much rather have your X-ray interpreted by a robot that simply can't overlook that dark spot on your lung, than a human doctor, who has just had a family argument. AI is not subject to the influences stemming from human nature, and, as it is argued, that AI can be more objective in making decisions.[7]

AI is seemingly impartial. It is the ideal judge Hercules described by Ronald Dworkin as "*a lawyer of superhuman skill, learning, patience and acumen*",[8] which possesses limitless time resources and exhaustive knowledge. As such it can also help to impartially select those people who will make decisions in court or arbitration.[9] Besides, an algorithm can indirectly promote impartiality in decision-taking, by, in particular, substituting for a human being at certain stages of justice administrations

[7] Lepri, B. Oliver, N. and Pentland, A. (2021) Ethical Machines: The Human-centric Use of Artificial Intelligence. *iScience*, 24, 102249. Available from: https://doi.org/10.1016/j.isci.2021.102249.

[8] Dworkin, R. (1975) Hard Cases. *Harward Law Review*, 88 (6), p. 1083.

[9] Schwing, M. A. (2020) Don't Rage Against the Machine: Why AI May Be the Cure for the 'Moral Hazard' of Party Appointments. *Arbitration International*, 36(4), pp. 491-507. Available from: https://doi.org/10.1093/arbint/aiaa033.

and other legal processes. For instance, AI is supposed to be able to deal with privacy violations in international criminal procedure.[10]

AI is seemingly 100% accurate. Moreover, it is based on rules far simpler and more straightforward than the intricate knot of neural connections in the brain. When asked about the reasons of a decision a human being may not always be able to explain them. All too often, we make decision on a spur of the moment, guided by subconscious mechanisms we are unaware of. An algorithm's decisions can be traced back to their roots.

In particular, it is assumed that when leaders make decisions AI can increase accuracy of them due to its ever-growing computing power and real-time data usage.[11] In addition algorithmic decision-making promises to be highly efficient,[12] and economically beneficial due to improved quality of services at a lower cost.[13] Algorithms also able to help us make evidence-driven decisions.[14] As noted with the help of AI "intuitive decision-making can be replaced, or at least informed and supplemented by fact-based considerations".[15] Thus, the accuracy of AI in decision-making is strengthened by the circumstance that it is based on facts, evidence and data that are automatically processed, quickly and in large quantities.

Based on the above it appears that AI is the safest and the most reliable decision-making tool. We are increasingly tempted to entrust AI with a continuously growing range of decisions, given its capacity to quickly process huge amounts of data, make predictions with a much higher degree of probability, avoid cognitive biases and, ultimately, do it without interruption and without feeling tired. The result is that we increasingly tend to shift the burden of responsibility onto machines. Yet, is AI indeed what it seems to be?

More often than not AI turns out to be in fact partial and its decisions can increase bias. When compiled by a biased creator, the algorithms won't

[10] Segate, R. V. (2021) Cognitive Bias, Privacy Rights, and Digital Evidence in International Criminal Proceedings: Demystifying the Double-edged AI Revolution. *International Criminal Law Review*, 21(2), pp. 242-279. Available from: https://doi.org/10.1163/15718123-bja10048.

[11] Wang, Y. (2020) When Artificial Intelligence Meets Educational Leaders' Data-informed Decision-making: A Cautionary Tale. *Studies in Educational Evaluation*, 69, 100872. Available from: https://doi.org/10.1016/j.stueduc.2020.100872.

[12] Birhane, A. (2021) Algorithmic Injustice: A Relational Ethics Approach. *Patterns*, 2(2), 100205. Available from: https://doi.org/10.1016/j.patter.2021.100205.

[13] McGinnis, J. O. and Pearce, R. G. (2014) The Great Disruption: How Machine Intelligence Will Transform the Role of Lawyers in the Delivery of Legal Services. *Fordham Law Review*, 82(6), p. 3064.

[14] Aizenberg, E. and van den Hoven, J. (2020) Designing for Human Rights in AI. *Big Data and Society*, 7(2), pp. 1–14. Available from: https://doi.org/10.1177/2053951720949566.

[15] Groher, W. Rademacher, F.-W. and Csillaghy, A. (2019) Leveraging AI-based Decision Support for Opportunity Analysis. *Technology Innovation Management Review*, 9 (12), pp. 29-35. Available from: http://doi.org/10.22215/timreview/1289, p. 34.

be but biased as well. The data we feed AI may not sufficiently represent vulnerable groups or may bear the imprint of past discriminatory practices. This is well illustrated by the biases in AI designed for litigation, such as the racist AI's decisions based on court cases collected over the years, where the statistics of decisions made by white people were not in favor of blacks. The algorithm designed for rating a defendant's risk of committing crimes was prone to significant racial disparities: it is particularly likely to falsely flag black defendants as prospective criminals, while mislabelling white defendants as less likely offenders.[16] There are many more cases of algorithmic discrimination, which has been a growing concern over the past few years.[17]

In less morally loaded spheres, such as weather forecasting, natural disasters prediction, satellites trajectories planning, etc., the benefits of using AI are predominantly clear. However, in the same case of natural disasters AI doesn't seem to be reliable enough when it comes to resources allocation. All too often, resources are limited, and we are faced with moral dilemmas of who not to help for the sake of others. It appears that we can not and ought not to make algorithms responsible for ethical choices in situations that have a direct impact on people's lives, at least because such situations are emotionally sensitive and people seek to be helped by a compassionate human being rather than a "heartless machine".

Another example is legal processes. In complex and morally loaded cases with multiple controversial and contradictory circumstances, coupled with a complex balance of individual rights against legitimate interests, the AI will have to take into account too vast an array of considerations. So vast that it makes using AI hardly possible at all. Some cases may have no definitive resolution or a mathematically accurate answer whatsoever. Some cases are decided by an insignificant preponderance and there will be many disagreeing opinions and sharp discussions during and after the proceedings. By eliminating these "aftershocks" we leave no room for vital legal debates, which could identify and get rid of legislative gaps and contradictions. Examples may include decisions of the Grand Chamber

[16] Angwin, J. et al. (2016) Machine Bias. There's Software Used Across the Country to Predict Future Criminals. And It's Biased Against Blacks. *ProPublica*, 23th May. Available from: https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing [Accessed 24 October 2020].

[17] Williams, B. Brooks, C. and Shmargad, Y. (2018) How Algorithms Discriminate Based on Data They Lack: Challenges, Solutions, and Policy Implications. *Journal of Information Policy*, 8, pp. 78-115; Cofone, I. (2019) Algorithmic Discrimination is an Information Problem. *Hastings Law Journal*, 70, pp. 1389-1444; Mazur, J. (2019) Automated Decision-making and the Precautionary Principle in EU Law. *Baltic Journal of European Studies*, 9 (4), pp. 3-18. Available from: https://doi.org/10.1515/bjes-2019-0035.

of the European Court of Human Rights in the case Vo v. France (2004),[18] in which it was debated whether or not an embryo has a right to life before it is born, or Evans v. United Kingdom (2007),[19] in which a woman's right to have genetically own children conflicted with the right of a man to withdraw his consent for the use of his genetic material. These cases also are examples of court disputes regarding sensitive issues, in which the general public have not reached a consensus, therefore it would be extremely inconsiderate to allow AI to make decisions of this kind. It is hardly sensible to empower algorithms with a possibility to deal with values.

Even without explicitly embedding value-based logic in AI it can and will implicitly contain certain ethical premises. An AI agent tends to function in accordance with the values of the customers or developers. When a team of developers is not sufficiently diverse, definite needs and problems specific to groups left non-represented can and will be overlooked. Focused on the logical and technical side, a developer cannot be fully aware of their subconscious premises and assumptions that can and will shape the resulting algorithm. This is clearly shown by many cases we have witnessed, such as elements of city design, crash test mannequins and drug tests prejudiced against women. There is no reason why algorithms won't adopt the same approach.

Another example of the complex case is the case of Bărbulescu v. Romania (2017)[20], where the court decided that there had been an infringement of privacy because the Romanian court was unable to determine the fair balance of the rights and interests of the parties, one of which, the employing company, was monitoring employers' correspondence in the workplace. This case stands out because the court's decision was changed to the opposite – but also because some judges actually changed their opinion. Is AI able to revise and change its decision?

One of the crucial parts of rule of law is the public being informed of the premises of decisions and the trust stemming from it. Precedent decisions often take into account the subtle nuances of the case as well as the validity and reasoning based on complex considerations, discussions and joint conclusions. People have access to the underlying argumentation no matter how complicated the case was. In contrast, AI-based decisions often do not contain explanations or detailed argumentation. This may

[18] Vo v. France, 53924/00, [2004] ECHR 326, (2005) 40 EHRR 12.

[19] Evans v United Kingdom, 6339/05, [2007] ECHR 264.

[20] Bărbulescu v. Romania, 61496/08, [2016] ECHR 61, [2017] ECHR 742, [2017] ECHR 754.

happen, for example, due to the very nature of some types of AI, such as neural networks, the reasons of whose actions often remain obscure to the developers themselves. Another reason for vagueness is that AI development and use is often the domain of companies reluctant to disclose the details of AI-based decisions. In addition, corporations are also often responsible for sacrificing the complexity and ethics of algorithms for the sake of functionality and a quick launch of a new product onto the market. If we actually do not have access to the internal mechanisms of the algorithm, some of the risks in using it can receive neither confirmation nor refutation.

Remarkably, AI is being used in decision support "in complex problems that involve uncertainty, large amounts of data, and are not deterministic".[21] While AI can be a boon for simple and repetitive tasks, not all uncertainty needs to be resolved. Certainty puts an end to discussion. Discussion, however, is part and parcel of law based on justice. Algorithmic and automatic decision making means less freedom. Without the freedom of action people don't develop ethical principles as part of their personality. If we aim to build a more and more mature society based on ever improving law, algorithmic decision-making will stand in the way.

All in all, AI may constrain freedom and undermine justice, in particular with regard to the responsibility-related issues they bring about. This, in turn, means problems for law as built upon justice, liberty and the recognition of human dignity. This is very close to the understanding of law as aimed at justice, in its antinomian understanding, which Mireille Hildebrandt advocated, when she defined law *"as aiming for justice, legal certainty and purposiveness"*.[22] Responsibility is a component of justice, which, in turn, is a component of law. The loss of responsibility causes significant damage to the two remaining components, to the point of their disappearance.

3. TRANSFORMATION OF THE IDEA OF RESPONSIBILITY

According to Paul Ricoeur, along with the capacities to speak, to act, and to talk about one's life, the capacity to take responsibility is the most important criterion of being a human and at the same time

[21] Phillips-Wren, G. and Jain, L. (2006) Artificial Intelligence for Decision Making. In B. Gabrys, R. J. Howlett and L. C. Jain (eds.) *Knowledge-Based Intelligent Information and Engineering Systems*. KES 2006. Lecture Notes in Computer Science, vol. 4252. Berlin and Heidelberg: Springer, pp. 531-536. Available from: https://doi.org/10.1007/11893004_69, p. 532.

[22] Hildebrandt, M. (2015) *Smart Technologies and The End(S) Of Law: Novel Entanglements of Law and Technology*. Cheltenham: Edward Elgar Publishing, p. 16.

the anthropological prerequisite of law. In its the most general form, the capacity for responsibility is understood as the ability to recognize that it's you who bears responsibility for your actions, as well as the ability the obligation to compensate the any damage caused by these actions and/or to undergo punishment for them. However, in the modern world, the relationships between the three elements of the concept of responsibility (imputation, compensation, retribution) are becoming more and more problematic, giving rise to a number of paradoxes like responsibility without fault, which in general leads that responsibility turning out to be *"a shattered concept"*.[23]

To restore integrity to this concept, Ricoeur proposes to return to Kantian double cosmological and ethical articulation of the term imputation, as the attribution of an action to an agent, and the moral qualification of that action. To this end, rather than referring to Kant's *Critique of Practical Reason* outlining the philosophy of law, one should address his *Critique of Pure Reason*, in particular the third "Cosmological Antinomy":

> *"Thesis: Causality, according to the laws of nature, is not the only causality operating to originate the phenomena of the world. A causality of freedom is also necessary to account fully for these phenomena.*
>
> *Antithesis: There is no such thing as freedom, but everything in the world happens solely according to the laws of nature".*[24]

The idea of imputability stems from the assumption of free spontaneity, whereby a series of appearances, which proceeds in accordance with laws of nature, begins with itself. In the *Critique of Practical Reason* this cosmological meaning of imputation is combined with the moral one: freedom constitutes the basis for the existence of the law, and the obligation to act in conformity with the law is combined with the duty to compensate for the damage or undergo punishment. It is this moral meaning of imputation that forms the basis of the modern legal understanding of responsibility, according to which the idea of retribution (for a fault) has displaced that of attribution (of an action to its agent). Thus,

[23] Ricoeur, P. (2000) *The Just.* Chicago and London: The University of Chicago Press, p. 19.

[24] Kant. I. (2003) *The Critiaue of Pure Reason.* Available from: https://www.gutenberg.org/files/4280/4280-h/4280-h.htm [Accessed 23 October 2020].

the cosmological component was gradually eliminated from the concept of responsibility.[25]

In reality, as Ricoeur notes, our actions are always associated with two types of causation, since, while performing a free action, we at the same time interfere in the course of events, which causes changes in the world.[26] However, the development of technology leads to free causality being gradually eliminated from our experience. This, in particular, is pointed out by Hannah Arendt when she speaks of a catastrophic deficit in the structure of our experience of thinking and acting.[27] The prospect of a radical transformation of our moral experience motivates as well the concerns of Jürgen Habermas about the rapidly developing biotechnologies which could lead to us no longer being able to understand ourselves as ethically free and responsible creatures.[28]

In jurisprudence, this deficit of action turns into deculpabilization of responsibility – its separation from the idea of fault, which is replaced by the concepts of solidarity, security and risk.[29] At the same time, fault is the central element of the concept of responsibility, which makes it possible both to attribute an action to its author and to undergo punishment for one's actions. Not accidentally that responsibility without fault seems to have appeared in jurisprudence quite late and until recently was rather an exceptional case. In turn, due to the exclusion of the element of fault both imputation and punishment are removed from the concept of responsibility. What remains is the third element alone, compensation for harm, which no longer presupposes identification of the actor, but only the one who bears certain risks, against which, however, you can always insure oneself.

> *"At the limit, however, we might ask whether there remains, at the end of an evolution where the idea of risk would have conquered the whole space of the law of responsibility, only a single obligation, that of insuring oneself against every risk!".*[30]

The result of these processes, according to Ricoeur, is a total loss of responsibility for any action. Being disconnected from the problematic

[25] Ricoeur, P. (2000) *The Just*. Chicago and London: The University of Chicago Press, pp. 13-19.
[26] Ricoeur, P. (2000) *The Just.* Chicago and London: The University of Chicago Press, p. 23.
[27] Arendt, H. (1998/1958) *The Human Condition*. Chicago and London: The University of Chicago Press, *pp.* 320-325.
[28] Habermas, J. (2003) *The Future of Human Nature*. Cambridge: Polity Press, pp. 16-74.
[29] *Ricoeur,* P. (2000) *The Just*. Chicago and London: The University of Chicago Press, p. 25.
[30] Ricoeur, P. (2000) *The Just*. Chicago and London: The University of Chicago Press, p. 28.

of decision-making, action finds itself placed under the sign of fatalism, which is the exact opposite of responsibility, because fate implicates no one, responsibility someone.[31]

Similarly, within the analysis of the history of this concept in the Western intellectual tradition, Andriy Baumeister points to the destruction of the idea of responsibility as going back from the Christian idea of human freedom and responsibility before God to the pre-Christian ideas of blind lot and fate.[32]

An example of such fatalism replacing responsibility is the increasingly widespread use of AI-based decisions in various fields, but especially in those that have always assumed personal responsibility: law, politics, medicine. The problem is that we don't understand who is the subject of fault and responsibility in the case of AI-based decisions, and who exactly should be blamed, what is the just retribution in this case, what kind of harm caused by AI-based decision is compensable. Is the notion of responsibility applicable here at all? Moreover, it could be said that such a destruction of the idea of responsibility leads to the loss of the very idea of law, at least the one that was formed in the Western tradition, that is, based on free will and responsibility.

4. THE SUBJECT OF RESPONSIBILITY

With this in mind it would be reasonable to consider the subject of responsibility in the light of AI-based decisions. Artificial intelligence could be seen as blurring the boundaries between human being and a machine. It is becoming increasingly complicated to distinguish between what the human being chose to do and what the machine designed to help them did. Machines are becoming parts of us: literally parts of our bodies, as cybernetic limbs, or almost literally parts of our brain, like computers, smartphones or driverless cars. In the past it used to be possible to separate an agent from the tool. It doesn't seem possible any longer. When your cyber eye malfunctions, is it you or the eye that is to blame for exceeding the limits of necessary defence? In many self-defence cases courts take into account the "*subjective perception of the attack*"[33] or the reasonable grounds

[31] Ricoeur, P. (2000) *The Just*. Chicago and London: The University of Chicago Press, p. 26.

[32] Баумейстер, А. (2009) Imputatio. У: *Європейський словник філософій: Лексикон неперекладностей*. Т. 1. Київ: Дух і літера, сс. 485-497.

[33] Novák, J. (2019) Assessment of the Impact of Acute Stress in Cases of Necessary Defense by Czech Courts. *Ido Movement for Culture. Journal of Martial Arts Anthropology*. Rzeszów: Idōkan Poland Association, 19 (1S), p. 90.

and beliefs of the one attacked. For instance, in the case *State v. Jones* (2016)[34] Whitlee Jones, having been attacked by her boyfriend, inflicted a mortal wound on him with a knife, believing that he would attack again. The court granted her immunity from prosecution, since she had been acting out of a reasonable belief of fear of death or grave bodily injury. In conventional cases like the above, we have an array of legal mechanisms to determine the measure of responsibility. For instance, it should be taken into account whether or not one mistook an innocent teenager for a criminal due to the thick fog, or whether or not a mental disorder played a role in your decision, etc. When a tool is inseparable from the agent it appears considerably harder, if at all possible, to determine the degree of responsibility.

If we are still looking for human subjects behind the algorithm, the circle of those responsible becomes too extended, since the circle of people involved in the creation, validation and implementation of AI is exceptionally wide. In addition, different parts of an algorithm could be assigned to different people, who may at some point change jobs; some corrections may be made to the code afterwards, making it increasingly difficult to trace the one responsible for a certain chunk of code. Apart from this, in the case of shared responsibility people tend to rely on everyone else. Each one of the team will only be shouldering a small fraction of responsibility. This behavioral effect is shown, for instance, in studies in two different social contexts: alone or in the presence of putative other third-party decision makers (full or diffused responsibility).[35]

While trying to determine the subjects of responsibility and the degree of guilt regarding AI-based decisions, we face numerous subjects involved and a disputable degree of their responsibility, which blurs the concept of responsibility as such. More often than not the user becomes the one carrying the entire burden of risks and responsibility. For instance, a user who submitted their credit card details through an application may sustaining financial losses or suffering from stress if the application doesn't function properly. Some of these losses are recoverable, but others are not, so these are additional risks that the end user assumes.

That said, can the algorithm itself acquire subjectivity, including a legal one? For the purpose of identifying the subject of responsibility in most

[34] State v. Jones, 416 S.C. 283, *786* S.E.2d 132 (S.C. 2016).

[35] Feng C. et al. (2016) Diffusion of Responsibility Attenuates Altruistic Punishment: A Functional Magnetic Resonance Imaging Effective Connectivity Study. *Human Brain Mapping*, 37, pp. 663–677.

cases guilt and intentions need to be taken into account. It probably isn't possible with AI. Even when dealing with strict liability under civil law, the key difference between the algorithm and another potentially dangerous "tool", such as a car or an attack dog, is the degree of autonomy. Some types of AI are at least capable of taking decisions and self-correcting, unlike dogs or cars. Potentially, it might become aware of itself, becoming very similar to a human being in that it can be regarded as a moral agent. If *"artificial agents extend the class of entities that can be involved in moral situations"*,[36] could they be seen as responsible? Will at least part of the moral responsibility lie with AI? How should we distribute responsibility among AI, its human developers, the customers, corporations, governments, etc.? If moral responsibility comes when agents are free to choose one action over another, what would be AI's preference? Will the algorithm ultimately acquire the ability to make ethical decisions based on what is ethically right or wrong? Will AI, in James H. Moor's terminology, become *"full ethical agents"* (being able to make ethical decisions, have free will, consciousness and intentionality)[37]?

Amanda Sharkey believes that *"given the gap between current robot abilities, and those required for full moral agency"*,[38] robots don't appear to ever be held morally accountable. When considering AI-based decisions, we can neither speak of AI's fault, nor regard it as a subject of moral and legal responsibility. It is perhaps worth concluding here that, when faced with unsolvable issues and not being able to identify the subject of responsibility, we will be forced to distribute the harm caused by AI-based decisions among all actors involved in the algorithm's development, sales, promotion and application. Such expansion of the circle of those held responsible is potentially endless and, by and large, leads to the fact that the concept of responsibility loses all meaning, at least legal, since the integral goal of legal responsibility – justice – is achievable only if responsibility is individualized, or at least the circle of responsible subjects is clearly limited. In turn, the elimination of fault and imputation from the concept of responsibility makes this goal unattainable.

Responsibility implies that we must establish what harm was caused and who must compensate for it. In legal cases where there is no subject

[36] Floridi, L. and Sanders, J. (2004) On the Morality of Artificial Agents. *Minds and Machines*, 14, pp. 349-379. Available from: https://doi.org/10.1023/B:MIND.0000035461.63578.9d.

[37] Moor, J. (2006) The Nature, Importance, and Difficulty of Machine Ethics. *IEEE Intelligent Systems*, 21 (4), pp. 18-21.

[38] Sharkey, A. (2017) Can We Program or Train Robots to Be Good? *Ethics and Information Technology*. Available from: https://doi.org/10.1007/s10676-017-9425-5.

of responsibility, there are at least compensation mechanisms (most often imposed on the state, sometimes on companies that produced the dangerous equipment or mistakenly released a defective batch of goods). In the case of AI, we have problems not only in establishing the subject of responsibility, but also in understanding and compensating for harm.

5. UNDERSTANDING HARM AND THE LIMITS OF ITS COMPENSATION

As far as harm is concerned the situation with autonomous vehicles appears to be the most illustrative. The well-known trolley problem that has fuelled philosophical debate for years has taken on a new dimension with the advent of fully AI-driven cars.

Philippa Foot outlined an ethical choice situation in which an uncontrollable trolley can either be turned onto the track where five people will be killed, or the track where one will be killed, discussing the "double effect doctrine", and the difference between direct and indirect intent, as well as a balance of good and evil.[39] Ever since then debates have been going on about the least harm and responsibility in a situation where it is impossible to avoid negative consequences. Judith Jarvis Thomson expanded on this problem by proposing to complicate it with the moral dilemma of the victim, where you have a choice not just between two tracks for the uncontrollable trolley, but between inaction and action – whether to push a large stranger standing on a bridge onto the path of the trolley where he will die stopping it.[40] Numerous variations of the dilemma have been springing up, the dilemma itself remaining rather theoretical – that is, until recently. Present day technological advances are pouring water onto the utilitarian's mill. Many of the AI technologies are based on utilitarian decision-making, and the deontological side of the discussion becomes eliminated.

AI makes us try to "solve" the trolley problem once and for all. When deciding on an action in a complicated road situation different human beings will be doing it in very different ways: based on intuition, based on spontaneous reactions, based on emotions or automatized skills. only a few will assess the potential harm. How will the algorithm be taking such

[39] Foot, P. (1967) The Problem of Abortion and the Doctrine of Double Effect. *Oxford Review*, 5, pp. 5-15.

[40] Thomson, J. (1985) The Trolley Problem. *Yale Law Journal*, 94, pp. 1395-1415. Available from: http://dx.doi.org/10.2307/796133.

decisions? What will be the underlying principle? There can be two possible logics behind this algorithm: the purely utilitarian one (potential harm assessment and/or assessment of the relative value of the lives of the people involved), or a random choice – based on a randomly generated number.

The moral agents mentioned above differ from other agents in that they have the responsibility to anticipate and avoid causing unjust harm. What understanding of unfair harm would AI use in a driverless car faced with the necessity of avoiding harm in a traffic accident? When it becomes part of our daily lives, should we be concerned when AI starts taking what we can call "ethical decisions"?

As some researchers suggest AI can minimize harm, while being ethical[41] and/or transparent.[42] However, what will be the definition of ethical? What is the definition of "just"? Algorithms are to be based on clearly defined principles while human decisions are taken based on an intricate mixture of intuitive and logical considerations. It is not unreasonable to assume that it's impossible, at least as of today, to create an algorithm that can take into account a wealth of complex ethical and logical considerations. Therefore, its solutions will have to be based on simple rules directed to minimizing harm. For instance, in a complicated road situation the algorithm will choose to swerve towards a sturdier car rather than the more fragile one, which will mean in essence punishing drivers of sturdier cars embedded in cars' algorithms. That might mean that a reckless driver of a Volkswagen Beetle is more likely to survive than a careful driver of a Range Rover, which is not the way we see justice today. Attempts to algorithmize the principle of minimal harm potentially give rise to at least two additional problems. People will have to be ranged in order to define sets of parameters for the algorithm. This is likely to be discriminatory as such sets will be limited, which means some people won't be taken into account. The other problem is that to make it possible for AI to assess people along those parameters a lot of data must be available and readable by it. That might entail, on the one hand, the necessity for people to share too many personal data, including age, chronic illnesses, disabilities and even pregnancy. On the other hand, this will mean having to install dozens of sensors and cameras, detecting the physical condition of a driver, their emotional state, etc., up to their sobriety.

[41] Geis, J. et al. (2019) Ethics of Artificial Intelligence in Radiology: Summary of the Joint European and North American Multisociety Statement. *Radiology*, 293(2), p. 439.

[42] Jobin, A. Ienca, M. and Vayena, E. (2019) The Global Landscape of AI Ethics Guidelines. *Nature Machine Intelligence*, 1, p. 391.

Both the philosophical and legal definitions of harm can be significantly different from how those engaged in machine learning understand harm. This might obscure the definition of liability. If new, complex and detailed laws and regulations are developed for such cases, then it is necessary for developers and customers (individuals, corporations and governments) to comply with them when introducing AI into operation. Such complex algorithms, however, probably won't be in demand, given the fact that, in essence, they are aimed at simplification. As has been shown above there is a limit to an algorithms' complexity. If an algorithm involves complex ethical considerations, will it have advantages over human decision-making as actually faster and more accurate, and will it work at all? In the case of self-teaching neural networks, the situation is complicated even further.

Bearing in mind the danger that AI will be built based on the utilitarian concept of minimizing harm, free from the complex ethical considerations that are nurtured in people throughout their lives, algorithmic decision-making should complement, rather than replace, human judgment. The problem is that such collaboration does not appear likely today. According to Paul Gowder, "*industry appears to rapidly working to computationally replicate the judgment previously carried out only by legally trained humans*".[43] Industry runs ahead of law and ethics while we are musing the issues of humanizing algorithms. Both in courts and on the road, we are getting closer to a truly autonomous AI that makes decisions but cannot be held responsible.

It is logical to conclude that the dehumanisation of AI-based mathematically justified decisions will lead to the dehumanisation of the idea of compensation for the harm done. Decisions prompted by the minimizing harm principle do not at all guarantee fairness as we, humans, see it today, while, at the same time, leading to the disappearance of the moral basis behind compensation in the form of the fault of the subject of choice. By and large, the harm caused by AI-based decisions is not subject to compensation within the framework of legal liability, and can only be covered by insurance payment.

6. DISAPPEARANCE OF LAW

The prevalence of technology, in particular, AI in decision-making leads to the situation when the actors multiply while the proportion of their responsibility is next to impossible to determine. The very concept

[43] Gowder, P. (2018) Transformative Legal Technology and the Rule of Law. *University of Toronto Law Journal*, 68, p. 82.

of responsibility becomes blurred. First and foremost, this can be seen as the difficulty identifying who is responsible in the sense of the author of harmful effects and, accordingly, as the difficulty individualizing responsibility (the problem of imputation). Secondly, the question arises: how far in space and time does the responsibility extend, and what becomes of the idea of reparation when there exists no relation of reciprocity between the authors of harmful effects and their victims?[44] The algorithm cannot be held responsible in any of the aspects of responsibility, and the circle of people involved in an algorithmic decision is potentially infinite. That said the circle of those affected by it is also potentially infinite, since the negative consequences of AI-based decisions can be delayed in time and affect many people. When this is the case, it is impossible to determine the circle of these people applying the criterion of the relationship between the actor and the affected person (the problem of compensation). Finally, the very concept of justice seems to be no longer relevant apart from the concept of free causality (the problem of retribution). Ricoeur summarizes these reasons for concern by calling on us to restore judgment and to preserve the idea of imputation, which is subject to attacks by solidarity and risk, again appealing to the Aristotelian virtue of *phronesis* – moral judgment conditioned by specific circumstances – which, according to Ricoeur, is a basis of the experience of law and justice.[45]

Notable in this regard is the conception of Lloyd L. Weinreb, who shows that the capacity for responsibility makes it possible to have rights. Accordingly, the erosion of the concept of responsibility makes our rights problematic. According to Weinreb, it is the idea of responsibility that underlies the difference between things and persons: things *cause* something to happen whereas people are *responsible* for what happens as a result of a decision.[46] Having the right means being responsible for our actions: having the right to do something, we also have the right not to do it, and thus, are responsible for our choices.[47] And in this sense, rights are not

[44] Ricoeur, P. (2000) *The Just*. Chicago and London: The University of Chicago Press, p. 30.

[45] Ricoeur, P. (2000) *The Just*. Chicago and London: The University of Chicago Press, pp. 34f.

[46] Weinreb, Lloyd L. (2004) A Secular Theory of Natural Law. *Fordham Law Review*, 72 (6), pp. 2287-2300. Available from: https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=3990&context=flr [Accessed 23 October 2020], p. 2291.

[47] Weinreb, Lloyd L. (2004) A Secular Theory of Natural Law. *Fordham Law Review*, 72 (6), pp. 2287-2300. Available from: https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=3990&context=flr [Accessed 23 October 2020], p. 2295.

something that we should or should not have, but something that, along with responsibility, already exists as a *"moral fact"*.[48]

This leads us to the conclusion that the above described replacement of responsibility with insurance against risks and the subsequent gradual disappearance of the capacity to be the subject of imputation and retribution from our moral experience may entail the situation where the seemingly comfortable and secure world of AI-decisions turns out to be a world that no longer requires law.

7. AI-BASED DECISIONS UNDER THE EXISTING EU LAW

In order to see if there is any hope of avoiding the loss of law, with the existing legal solutions in the field of AI in mind, we will now make a brief analysis of EU law. We will focus on the European approach to AI regulation for two reasons that seem significant: (1) it is the most complete, consistent and all-encompassing to date, (2) it remains human rights centred.

The comprehensive legal framework is being discussed at the moment. It is long overdue as compulsory and fully harmonised technology, in order to avoid fragmentation of the European digital single market and promote innovation.[49] This has led to the emergence of promising proposal called the Artificial Intelligence Act,[50] which, among other things, grades AI systems by risk levels. According to Luciano Floridi, this regulation "*is a good starting point to ensure that the development of AI in the EU is ethically sound, legally acceptable, socially equitable, and environmentally sustainable*".[51] This is part of the overall tendency towards the creation of compulsory, comprehensive and extraterritorial framework. Other examples of the trend

[48] Weinreb, Lloyd L. (2004) A Secular Theory of Natural Law. *Fordham Law Review*, 72 (6), pp. 2287-2300. Available from: https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=3990&context=flr [Accessed 23 October 2020], p. 2296.

[49] European Parliament resolution of 20 October 2020 on intellectual property rights for the development of artificial intelligence technologies (2020/2015(INI)). Available from: https://www.europarl.europa.eu/doceo/document/TA-9-2020-0277_EN.html [Accessed 01 July 2021].

[50] EU Proposal for a Regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act). COM/2021/206 final. Available from: https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=COM:2021:206:FIN. [Accessed 21 June 2021].

[51] Floridi, L. (2021) The European Legislation on AI: A Brief Analysis of Its Philosophical Approach. *Philosophy & Technology*. Jun:1-8. Available from: https://doi.org/10.1007/s13347-021-00460-9.

are the Digital Markets Act,[52] the Digital Services Act[53] and Data Governance Act.[54]

That said, certain elements of regulatory basis for AI-based decisions exist already, although some of them take part in this regulation indirectly. In particular, norms regarding open data and data reuse,[55] are important to regulate algorithmic decision-making. It goes without saying that GDPR has a serious influence on AI application for two main reasons: it regulates handling the data that feed AI and influence its decisions, and, besides, it contains norms as to automated individual decision-making, including profiling.[56]

The extent to which the new regulatory suggestions will be coordinated with the existing acts is yet to be clarified. For instance, AIA defining an AI system as "*a software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with*".[57] Under the existing law, however, an AI system means "*a system that is either software-based or embedded in hardware devices, and that displays behaviour simulating intelligence by, inter alia, collecting and processing data, analysing and interpreting its environment, and by taking action, with some degree of autonomy, to achieve specific goals*".[58]

Alongside the problems of the new legal framework's comprehensiveness and the accordance of its elements, another issue

[52] Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) COM/2020/842 final. *Available* from: https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1608116887159&uri=COM%3A2020%3A842%3AFIN [Accessed 27 June 2021].

[53] Proposal for a Regulation of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act) and amending Directive 2000/31/EC COM/2020/825 final. Available from: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=COM:2020:825:FIN [Accessed 28 June 2021].

[54] Proposal for a Regulation of the European Parliament and of the Council on European data governance (Data Governance Act) COM/2020/767 final. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0767 [Accessed 30 June 2021].

[55] Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information PE/28/2019/REV/1. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2019.172.01.0056.01.ENG [Accessed 19 June 2021].

[56] "The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her", article 22, Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). Available from: https://eur-lex.europa.eu/eli/reg/2016/679/oj [Accessed 02 July 2021].

[57] EU Proposal for a Regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act). COM/2021/206 final. Available from: https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=COM:2021:206:FIN. [Accessed 21 June 2021].

appears essential: the ability of law to be anticipatory. According to Mirko Pečarič, "*the anticipative general legal rules are focused on the future*".[59] Given the overwhelming pace of technology development law is bound to be constantly lagging behind. To deal with this it is suggested that legislation should be adjusted to what is predicted to happen rather than be based on the "*classical binary legislation*".[60]

The aforementioned "digital" acts are supposed to form the carcass of the normative regulation of the emerging technologies. At the same time, their role appears to be restraining rather than determining. Apparently, we need to change the very approach. Law-makers need a broad range of consultations, primarily with philosophers, ethicists and IT technicians. All probable scenarios and all "ifs and buts" must be considered, including "digital" threats viewed in a broader context. Indeed, modern technologies may have a manipulative nature or influence,[61] and may influence social norms and expectations, frame cultural perceptions of accountability.[62] Algorithmization may disproportionately affect vulnerable groups, while also leading to the fact that complex social challenges are automated and packaged as mathematical problems,[63] and challenge us to ensure adequate levels of safety in work environments.[64]

As Kelly Blount rightly noted "*the effects of AI's use are not strictly limited to its immediate application*".[65] Algorithms may bear hidden risks. This is similar to the way social media significantly shape media landscape while

[58] European Parliament resolution of 20 January 2021 on artificial intelligence: questions of interpretation and application of international law in so far as the EU is affected in the areas of civil and military uses and of state authority outside the scope of criminal justice (2020/2013(INI)). Available from: https://www.europarl.europa.eu/doceo/document/TA-9-2021-0009_EN.html [Accessed 17 June 2021].

[59] Pečarič, M. (2021) Lex Ex Machina: Reasons for Algorithmic Regulation. *Masaryk University Journal of Law and Technology*, 15(1), p. 111.

[60] Pečarič, M. (2021) Lex *Ex* Machina: Reasons for Algorithmic Regulation. *Masaryk University Journal of Law and Technology*, 15(1), p. 111.

[61] Susser, D. Roessler, B. and Nissenbaum, H. (2019) Technology, Autonomy, and Manipulation. *Internet Policy Review*, 8 (2). Available from: https://doi.org/10.14763/2019.2.1410; Klenk, M. (2020) Digital Well-being and Manipulation Online. In C. Burr and L. Floridi (eds.) *Ethics of Digital Well-Being: A Multidisciplinary Approach*. Dordrecht: Springer, pp. 81-100.

[62] Elish, M. (2019). Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction. *Engaging Science, Technology, and Society*, 5, pp. 40-60. doi: https://doi.org/10.17351/ests2019.260.

[63] Birhane, A. (2021) Algorithmic Injustice: A Relational Ethics Approach. *Patterns*, 2(2), 100205. Available from: https://doi.org/10.1016/j.patter.2021.100205.

[64] Jarota, M. (2021) Artificial Intelligence and Robotisation in the EU - Should We Change OHS Law? *Journal of Occupational Medicine and Toxicology*, 16, 18. Available from: https://doi.org/10.1186/s12995-021-00301-7.

[65] Blount, K. (2021) Seeking Compatibility in Preventing Crime with Artificial Intelligence and Ensuring a Fair Trial. *Masaryk University Journal of Law and Technology*, 15(1), p. 45.

at the same time escaping editors' responsibility. Their normative role and impact on public debate had long remained concealed. Perhaps counter-intuitively, it is such merits of social networks as openness of opinions and civil society cooperation that made this problem non-obvious. These non obvious AI threats must undoubtedly be considered. Notwithstanding the rapidly developing legal framework, the approach to AI regulation must be modified in its core.

8. CONCLUSIONS

Further penetration of AI technologies into decision-making is inevitable. This will tell upon law in particular. There are obvious advantages of AI: it is efficient, its forecasts in less ethically loaded areas are accurate, it is relatively error-proof unlike human decisions, it contributes to overcoming inequality and systemic injustice. On the other hand, AI is associated with a number of risks: (1) the complexity of identifying the subject of responsibility and its limits, (2) difficulty determining the damage to be compensated, (3) the apparent impossibility of fair punishment.

As AI is literally merging with the human being and it is becoming increasingly complicated to identify the subject of responsibility. Being neither moral, nor legal a subject, AI, per se, can not be held responsible. When seeking a subject, we are faced with too broad a circle of them as there are too many actors involved in algorithmic decision-making. AI-dependent culture appears to emphasize the utilitarian mindset, which tells upon the understanding of harm and practically dehumanizes decision-making. Extra-complicated cases can arguably not be described by an algorithm, however complex. Any complexity has its limits while human nature manifestations have none. AI will cut off any deviations, thus, limiting the scope of the judiciary system and leading to injustice.

The described processes correlate with the general trend of transformation of the very concept of responsibility and the corresponding moral experience researched by Paul Ricoeur. This has to do with the replacement of personal responsibility with a system of collective insurance against risks and the disappearance of the capacity to be a subject of imputation and retribution from the structure of our experience. This, in turn, is making justice and law impossible. Ultimately, the world of AI-based decisions, in which we no longer need to make free and responsible decisions, no longer needs law.

Our dependence on algorithmic decision-making is growing at a much faster pace than the legislation can keep up with. There have been a large number of attempts to develop an effective legal framework to solve AI related problems. One of the most successful examples is the current EU legislation, as well as the proposals which are being actively discussed in EU. However, some threats remain hidden and are not even discussed.

We invented computers to help us think, to eliminate human errors, as the human being is imperfect. We take it for granted that intelligent machines are smarter than us, trusting algorithms far more than people. Surrounding ourselves with algorithms in each and every sphere of life we remain, however, unaware of the backward effect: we are starting to adopt the same style of thinking – the algorithmic one. We are making machines – machines are starting to make us. AI is designed to cope with human imperfection, but in doing so it eliminates doubt, removes the necessity of discussion, cuts out emotions and strips out the purely human things. Relying on algorithms heavily, we cannot but adopt this style of thinking as "better", internalizing it. At some point, we may unlearn to doubt and stop discussing for the sake of "rightness" and logic. At some point, we are bound to stop wanting fairness in the human understanding of the word – and substitute the mathematically ideal decision for a just decision. We will then become algorithmic fatalists.

This state of affairs is due to the very nature of the problem, which is not only and not so much legal as anthropological, and the solution of which requires combining the perspectives of jurisprudence, sciences and philosophy. The anthropological hope is that while we are still discussing this we still need human justice. We wouldn't want to reach a point at which we stop realizing that something is wrong, at which we stop striving for justice.

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