

## Research Article

# ALGORITHMS IN THE COURTS: IS THERE ANY ROOM FOR A RULE OF LAW?

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**Summary:** 1. Introduction. – 2. The Rule of Law in Times of Digital Technologies. – 3. Judicial Independence under the Influence of Digitalisation. – 4. The Algorithmisation of Decision-making. – 5. Conclusions.

**Keywords:** algorithms; decision-making; digitalization; judicial independence; rule of law

## ABSTRACT

**Background:** *The rule of law is one of the fundamental pillars, along with human rights and democracy, which are affected by digitalisation today. Digital technologies used for the victory of populism, the manipulation of opinions, attacks on the independence of judges, and the general instrumentalisation of the law contribute significantly to the onset of negative consequences for the rule of law. Particularly dangerous are the far-reaching consequences of the algorithmisation of decision-making, including judicial decisions.*

**Methods.** *The theoretical line of this research is based on the axiological method since the rule of law, democracy, and human rights are not only the foundations of legal order, but also values*

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recognised in many societies and supported at the individual level. The study also relied on the phenomenological method in terms of assessing the experience of being influenced by digital technologies in public and private life. The practical line of research is based on the analysis of cases of the European Court of Human Rights and the Court of Justice to illustrate the changes in jurisprudence influenced by digitalisation.

### **Results and Conclusions:**

*This article argues that the potential weakening of the rule of law could be related to the impact of certain technologies itself, and to their impact on certain values and foundations which is significantly aggravated.*

*Judicial independence is affected since the judges are involved in digital interactions and are influenced by technologies along personal and public lines. That technologies often belong private sector but are perceived as neutral and infallible, which is highly predictive of court decisions. This leads to a distortion of the essence of legal certainty and a shift of trust from the courts to certain technologies and their creators.*

*The possibility of algorithmic decision-making raises the question of whether the results will be fairer, or at least as fair, as those handed down by human judges. This entails two problems, the first of which is related to the task of interpreting the law and the second of which involves the need to explain decisions. Algorithms, often perceived as reliable, are not really capable of interpreting the law, and their ability to provide proper explanations for decisions or understand context and social practices is questionable. Even partial reliance on algorithms should be limited, given the growing inability to draw a line between the human and algorithmic roles in decision-making and determine who should be responsible for the decision and to what extent.*

## **1 INTRODUCTION**

Digitalisation is understood in different ways – from the transfer of paper documents to digital format to significant transformations of all aspects of life under the influence of digital technologies. Given the broad definition of digitalisation as ‘the legal, political, economic, cultural, social, and political changes brought about by the use of digital tools and technologies’,<sup>1</sup> attention should be paid to how it affects such fundamental foundations as the rule of law, democracy, and human rights. Undoubtedly, some aspects of digitalisation can help strengthen the rule of law, as well as provide new tools for both access to justice and maintaining the independence of judges. At the same time, the threats that digitalisation poses cannot be ignored, especially insofar as it can undermine the very foundations of the rule of law and change our understanding of justice.

Bearing these things in mind, this article analyses the impact of digitalisation on the rule of law, taking into account the direct and hidden consequences of the introduction of digital technologies in the private and public spheres of life. This study focuses primarily on those aspects of the rule of law that are related to the courts and judicial independence. A particular task of the study is to determine what changes are and may be present in the adoption of judicial decisions under the influence of the algorithmisation of decision-making.

The general theoretical framework of this study is based on the axiological method since the rule of law, democracy, and human rights are not only the foundations of the legal order but also values recognised in many societies and supported at the individual level.

1 Yu Razmetaeva, Yu Barabash, D Lukianov, ‘The Concept of Human Rights in the Digital Era: Changes and Consequences for Judicial Practice’ (2022) 3(15) Access to Justice in Eastern Europe 44.

The study also relied on the phenomenological method in terms of assessing the experience of being influenced by digital technologies in public and private life. The practice of two leading courts, namely the European Court of Human Rights (ECtHR) and the Court of Justice of the European Union (CJEU), was chosen as an empirical basis for the analysis. This choice was made for two reasons: firstly, it is in the European legal order that the rule of law constitutes a recognised pillar, along with democracy and human rights, and secondly, the extensive practice of these courts on issues related to the impact of digital technologies provides the most complete picture of the impact digitalisation on aspects of the rule of law.

## 2 THE RULE OF LAW IN TIMES OF DIGITAL TECHNOLOGIES

The rule of law is or should be one of the pillars of both the international and national legal order. Attacks on the rule of law and its weakness affect societies in the most negative way and are closely related to the decline of democracy and disillusionment with human rights. Digitalisation has called into question many of the foundations and values that we used to rely on, forcing us to reconsider their importance and understanding.

It is no secret that it is extremely difficult to define the rule of law, both because of the divergence in concepts and because of the magnitude of the phenomenon itself. In the context of the digital world, it is defined as 'a principle of governance by which all persons, institutions and entities, public and private, including the state itself, are accountable to laws that are publicly promulgated, equally enforced, independently adjudicated and consistent with international human rights norms and standards.'<sup>2</sup> As Mantas Pakamanis pointed out, 'the concept of the rule of law *inter alia* requires accessibility of law, questions of legal right should be decided by law not discretion, and compliance by the state with its obligations in international law'.<sup>3</sup> According to Graham Butler, 'If it cannot be agreed what the rule of law is, at least it can be agreed what the rule of law is not. It is not compatible with extra-constitutional governance arrangements, nor with authoritarianism, fascism or a regime constructed around an individual'.<sup>4</sup> In other words, faced with an attack on the rule of law, a significant weakening, or an absence of it, we seem to be able to determine what is missing. At the same time, a feature of a world imbued with digital technologies is a rather imperceptible influence that transforms both social structures and individual experiences.

Are the consequences of digitalisation critical for the rule of law? Do the positive effects of digitalisation outweigh its negative effects? Is there something so dangerous about the digital age itself that it contributes to negative consequences, or are the implications so significant because the fundamental pillars had already weakened by the time digital technologies took hold?

There are conflicting opinions about the implications of digitalization for the rule of law and the process of administration of justice. For instance, a study on the consequences of using Online Dispute Resolution 'does not suggest any "rule of law" and "justice" implications

2 Council of Europe, 'The rule of law on the Internet and in the wider digital world' (December 2014) Issue paper published by the Council of Europe Commissioner for Human Rights Executive summary and Commissioner's recommendations 8.

3 M Pakamanis, 'Interaction between the doctrines of forum non conveniens, judgment enforcement, and the concept of the rule of law in transnational litigation in the United States' (2015) 1 International Comparative Jurisprudence 110.

4 G Butler, 'The European Rule of Law Standard, the Nordic States, and EU Law' in A Bakardjieva Engelbrekt, A Moberg, J Nergelius (eds), Rule of law in the EU: 30 years after the fall of the Berlin Wall (Hurt Publishing, an imprint of Bloomsbury Publishing 2021) 246.

for small claim ODR' and basically supports 'wider use of ODR'.<sup>5</sup> At the same time, despite the obvious benefits of quick and easy access to dispute resolution, there are some fair concerns, most notably those related to access to technology and the deeper digital divide. In particular, Tania Sourdin, Bin Li, and Donna Marie McNamara write about 'the use of such technologies in the justice system, including how to safeguard the rights of vulnerable social groups and manage the disruptions to justice caused by some innovations'.<sup>6</sup> The further the application of digital technologies goes, the more these unresolved problems are amplified. This is what is happening now with algorithmic technologies, without which it is already difficult to imagine some actions and processes.

Existing challenges to the rule of law may have weakened the viability of its concept, which, combined with the features of the digital age, creates a 'double whammy' for the rule of law. First of all, we need to take into account the growth of populism, which has been discussed in recent decades. According to Bojan Bugarcic, who studied the rise of populism and the resulting weakening of the rule of law in Central and Eastern Europe, 'Democracies in CEE are not about to collapse because of the rise of populism. Nevertheless, the populist challenge to liberal democracy has to be taken seriously'.<sup>7</sup> The virus of populism is not something that specifically affects Central and Eastern Europe. The so-called old Western democracies are also subject to it, and digital technologies have opened new floodgates for this. It can be assumed that digitalisation contributes to this in two aspects. Firstly, the ease with which communication tools connect people with some particular view of the world, including the most fantastical, conspiracy theological, radical, or extremely irrational views, plays a role. Secondly, the volume of information that each of us is forced to consume on a daily basis has significantly increased, and so has the amount of false, albeit authentic-looking, data that falls into the information field in one way or another. This leads to information fatigue and a desire for simplification. Both of these aspects add fuel to the fire of populism.

Another existing challenge to the rule of law is instrumentalisation of law. According to Brian Z. Tamanaha, 'rather than represent a means to advance the public welfare, the law is becoming a means pure and simple, with the ends up for grabs'.<sup>8</sup> The trend of instrumentalisation fits very well with the specifics of the digital era when the private and public spheres are full of tools provided by technologies and their developers. This, in turn, may contribute to the devaluation of certain concepts that are or were important to us. Getting used to evaluate many things as tools, and not as values, we may begin to look at things only from the point of view of utility. Therefore, it can be difficult for us to abandon an effective but discriminatory recruitment algorithm. It can also be difficult for us to refuse a decision that is effective but violates human rights, or a decision that is politically expedient but runs counter to the requirements of justice.

Thus, some weakening of the rule of law can be traced today due to reasons not directly caused by digitalisation. Simultaneously, there are two lines of concern about the potential further weakening of the rule of law. Firstly, it is a feature of the digital age and, specifically, some technologies that significantly exacerbate the negative effect of some attacks on certain values and foundations. In particular, this concerns the erosion of democracy under the influence of digital manipulation of opinions and electoral processes, the harm to human rights from penetration into private life, and the accumulation of data and automation of

5 U Ojiako, M Chipulu, A Marshall, T Williams, 'An examination of the "rule of law" and "justice" implications in Online Dispute Resolution in construction projects' (2018) 36 *International Journal of Project Management* 301.

6 T Sourdin, B Li, DM McNamara, 'Court innovations and access to justice in times of crisis' (2020) 9 *Health Policy and Technology* 452.

7 B Bugarcic 'Populism, liberal democracy, and the rule of law in Central and Eastern Europe' (2008) 41 *Communist and Post-Communist Studies* 192.

8 BZ Tamanaha, *Law as a Means to an End Threat to the Rule of Law* (Cambridge University Press 2006) 4.

interaction processes, as well as doubts about the fairness, independence, and objectivity of decisions made in the light of algorithmisation. Secondly, there are specific challenges to the rule of law caused by digitalisation itself.

One of the most severe challenges to the rule of law in light of digitalisation is mass surveillance technologies. The scale of challenges brought about by digitalization is not clearly and carefully assessed even in case law. In the classic ECtHR case of *Klass and Others v. Germany*, it was established that there should be adequate and effective guarantees against abuse, no matter what system of surveillance is adopted.<sup>9</sup> Since this case, secret surveillance systems have advanced significantly. In addition, surveillance has become massive, both in terms of the technical tools used by states and in terms of filling our spaces with surveillance technologies as such. From satellites in space to video cameras on the roads, this massive technological presence allows for a fairly accurate view of the lives of almost everyone, even with all the legal restrictions on processing and accessing data. Today's particular concern is facial recognition technologies. For instance, the UN High Commissioner for Human Rights report showed how risky the use of facial recognition technology could be to the right to peaceful assembly and non-discrimination.<sup>10</sup> Despite attempts to restrict governments and big tech companies from using such dangerous tools, it seems far from the truth that the development of such technologies will not continue in the near future.

Besides, digitalisation is changing the very essence of the requirements that make up the smallest elements of the rule of law. Some things are already taken for granted, like filing documents by email or joining a court hearing online, although courts still consider barriers to digital access. It could be seen, for example, in the recent case of *Xavier Lucas v. France*, where the decision of the court was recognised as overly formalistic, bearing in mind that the applicant could not send e-files because there were practical hurdles.<sup>11</sup> This example clearly illustrates that the courts are capable of remaining a bulwark of substantive justice. The requirement to use electronic means, however, is becoming more and more common.

It is worth bearing in mind that courts are increasingly forced to evaluate actions in digital spaces and the consequences of using digital tools. In fact, the courts have to determine those things that remain undetermined in understanding individuals and societies. This often causes discussions, as in the case of *Sanchez v. France*, where it was assessed whether the owner of a public account on social media has special duties of control and vigilance.<sup>12</sup> The court concluded that there was no violation of the right to freedom of expression against the applicant, a local politician, who was convicted of inciting hatred for failing to immediately remove third-party hate speech comments. According to the court, he was obliged to monitor the content of the published comments, knowingly making his account on the social network publicly available and allowing comments to be placed under his posts.

Other examples of this include the landmark decisions of the CJEU, which have contributed to redefining what we mean by the protection of human rights in light of digitalisation. In particular, these include the cases regarding privacy and data protection, such as the case of *Digital Rights Ireland*, which established important retention criteria regarding data,<sup>13</sup>

9 *Klass and Others v Germany* (1979) 2 EHRR 214.

10 Report of the UN High Commissioner for Human Rights on 'Impact of New Technologies on the Promotion and Protection of Human Rights in the Context of Assemblies, Including Peaceful Protests', 24 June 2020, A/HRC/44/24 <<https://undocs.org/en/a/hrc/44/24>> accessed 19 July 2022.

11 *Xavier Lucas v France* (2022) ECHR 462.

12 *Sanchez v France* 45581/15 Judgment 2 September 2021 [Section V] (this case was referred to the Grand Chamber on 17 January 2022).

13 Court of Justice of the European Union joined cases nos C293/12 and C594/12 'Digital Rights Ireland Ltd v Minister for Communications, Marine and Natural Resources and Others and Kärntner Landesregierung and Others' (April 2014) <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62012CJ0293>> accessed 22 July 2022.

and the case of *Schrems II*, which reaffirmed the high standard of privacy protection and annulled the EU-US data transfer agreement as inconsistent with this standard.<sup>14</sup> In this sense, the expectations placed on the judges are extremely high, given the fact that even certain technology creators find it difficult to understand the intricacies of some digital tools, not to mention the fact that certain cases require the simultaneous presence of legal, ethical, and technological expertise.

In this way, the consequences of court decisions in the digital age can be significant both for the rule of law, as one of the pillars of a democratic society, and for society as a whole. Further, the courts with broader discretion can be at the forefront today, reshaping established legal perceptions. This happened, for example, in two key cases in the CJEU about the right to be forgotten. In the *Google v. Spain*<sup>15</sup> case, the CJEU recognised this right, and in the case of *Google v. CNIL*,<sup>16</sup> it partly established its global character. In the digital era, as Evangelia Psychogiopoulou writes, ‘there may be ample opportunities for the CJEU to examine whether EU law may give more extensive protection to fundamental rights than the ECHR and the ways to do so’.<sup>17</sup> It seems we have yet to see how such courts cope with the increased need to interpret and balance certain rights and interests in the digital age. This is especially interesting given that judges are also included in today’s digital interactions and all-encompassing technologies and therefore subject to the influences of this.

### 3 JUDICIAL INDEPENDENCE UNDER THE INFLUENCE OF DIGITALISATION

Judicial independence promotes the rule of law by helping to maintain the separation of powers and prevent the abuse of power. Independent and impartial judges embody justice and equality, allow the interests of certain powerful individuals and legal entities to be restrained, and also maintain the authority of law in society. All this undoubtedly works together with flourishing human rights, democracy, and the rule of law as a system and is based on the smallest building blocks of this system – from protecting freedom of expression to enforcing the procedural aspects for access to justice.

In accordance with the Magna Carta of Judges, ‘judicial independence shall be statutory, functional, and financial. It shall be guaranteed with regard to the other powers of the State, to those seeking justice, other judges and society in general, by means of national rules at the highest level’.<sup>18</sup> Functional, not declared, formal independence is supported by a whole system of various guarantees, including the dynamic practice of international judicial institutions.

Needless to say, judicial independence is not so easy to maintain and is also subject to numerous attacks. As Leonard Besselink writes, ‘the annoyance with the independence of

14 Court of Justice of the European Union case no C311/18 ‘Data Protection Commissioner v. Facebook Ireland Limited and Maximilian Schrems’ (July 2020) <<https://curia.europa.eu/juris/liste.jsf?num=C-311/18>> accessed 24 July 2022.

15 Court of Justice of the European Union case no C131/12 ‘Google Spain SL, Google Inc. v. Agencia Española de Protección de Datos (AEPD), Mario Costeja González’ (May 2014) <[https://curia.europa.eu/juris/document/document\\_print.jsf?doclang=EN&docid=152065](https://curia.europa.eu/juris/document/document_print.jsf?doclang=EN&docid=152065)> accessed 18 July 2022.

16 Court of Justice of the European Union case no C507/17 ‘Google LLC, successor in law to Google Inc. v. Commission nationale de l’informatique et des libertés (CNIL)’ (September 2019) <<https://curia.europa.eu/juris/liste.jsf?language=en&num=C-507/17>> accessed 19 July 2022.

17 E Psychogiopoulou, ‘Judicial Dialogue and Digitalization: CJEU Engagement with ECtHR Case Law and Fundamental Rights Standards in the EU’ (2022) 13 JIPITEC 145 para 1 <<https://www.jipitec.eu/issues/jipitec-13-2-2022/5541>> accessed 12 August 2022.

18 Magna Carta of Judges (Fundamental Principles) CCJE (2010) 3 <<https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168063e431>> accessed 3 August 2022.



the judicial machinery that frustrates power-seeking despots, logically tempts them into “normalising” the courts, filling them with politically friendly judges in order to make them work in function of the power holders claim to have authority because the people want them to have that authority.<sup>19</sup> Political engagement is one of the biggest challenges to judicial independence. In particular, it was pointed out that ‘while judicial independence is often considered to be a foundation for the rule of law and economic prosperity, there is overwhelming evidence suggesting that judges and court decision-making are sensitive to the political environment.’<sup>20</sup> Thus, even without being direct creatures of certain political forces, judges may be influenced by the political situation, especially when it comes to serious social upheavals. In order to make fair decisions on significant public issues in such cases, judges must be aware of the political context and, at the same time, be outside of it, primarily in the sense of impartiality. This seems rather complex and requires constant reflection on the part of the judges themselves. A similar challenge is facing them in connection with digitalisation, as the involvement in the digital environment and the consequences of the use of digital technologies are intensifying.

It seems that the independence of judges also includes independence of judgment and discretion, since it allows judges to maintain free will as the freedom to think and act and take a case-by-case approach while respecting reasonableness. At the same time, the independence of judgment and discretion is not unlimited, and the results of its application could be criticised. For instance, in the case of *Brzezinski v. Poland*,<sup>21</sup> the ECtHR used the term ‘fake news,’<sup>21</sup> introducing it even though neither the applicant nor the Polish government used it. This example also illustrates how the interpretation of certain phenomena of the digital age is thin ice, in the sense that it is not always possible to give a proper definition or explanation.

Digitisation can reduce the burden on judges and speed up and reduce the cost of litigation, making it ultimately more efficient and even promoting legal certainty, in the sense that some automated actions will be more predictable and understandable. At the same time, digitalisation threatens to subtly undermine important foundations of justice, in particular, the independence of judges.

The first issue here is the increased number of influences on judges that we could see in the digital age. These influences run along two lines: personal and public. On a personal level, judges and juries, just like other people, are, to some extent, involved in the digital space today. They may have social media accounts and other digital footprints that make it easier for stakeholders to profile them and get a more accurate psychological profile. This, in turn, is used to build a strategy in litigation based on the vulnerabilities and characteristics of specific decision-makers. On a public level, digital tools and especially algorithms make it relatively easy to manipulate public opinion. They allow, for example, certain opinions about litigation to be widely disseminated, imbued with the right doubts and the right emphasis, to influence both decision-makers and the public’s expectations of those decisions. This is especially important in high-profile cases with high publicity or political implications.

This effect may be exacerbated by the fact that innovations find it hard to take root in a conservative judiciary. Judges and courts, as rightly pointed out, ‘can use the opportunities provided by technology to change the way in which courts work and function and to alter the way in which reform takes place. To date however, most courts have used technology to

- 19 I Besselink, ‘Rule of Law as Problems of Democracy’ in A Bakardjieva Engelbrekt, A Moberg, J Nergelius (eds), *Rule of law in the EU: 30 years after the fall of the Berlin Wall* (Hurt Publishing, an imprint of Bloomsbury Publishing 2021) 48.
- 20 J Falkowski, J Lewkowicz, ‘Are Adjudication Panels Strategically Selected? The Case of Constitutional Court in Poland’ (2021) 65 *International Review of Law and Economics* 105950.
- 21 *Brzezinski v Poland* 47542/07 (2019) ECHR 590.

replicate existing systems and processes rather than focusing on reforming the structures and processes that exist within the justice system.<sup>22</sup> Some conservative elements of the judiciary, which previously performed a rather protective function for independence, turn out to be inoperative in the face of the challenges of digitalisation, which have to be responded to rather quickly, given the rapidity of technological development.

It is also worth considering the issue of predictability, primarily the predictability of judicial decisions, which could contribute to attacks on judicial independence. Apparent or actual predictability may lead to such consequences as public doubts about judicial impartiality or professionalism, as well as rising pressure on judges. It should be noted that these public doubts may not be based on facts but on false premises or unverified, insufficiently verified, or out-of-context statements and may be rapidly divergent in the digital environment. The deeper consequences may include a distortion of the essence of legal certainty, which in turn affects the distortion of the rule of law since legal certainty is one of its elements.

Technology already makes it possible to fairly accurately predict the outcome of court cases not only in a general sense but also in important details. The degree of accuracy of such predictions in relation to national and international courts is increasing every year, and today, it is already threatening.<sup>23</sup> Digitisation also has greatly expanded access to court data. One example is a study of how formal and informal institutions shape judicial sentencing cycles that relied on data from US states that had digitised their trial court sentencing data and had processes in place for sharing these data, including judge identifiers in the sentencing data given by ten states.<sup>24</sup> Therefore, the first important point in predictive practice regarding judicial decisions reflects how pieces of data, collected in huge quantities and successfully put together thanks to smart technologies, leave less and less space for incalculable actions and opinions.

Another important point is that these court predictive systems belong to the private sector, whether it be the French project *Predictice*, which touts itself as the only search engine on the market that allows you to sort results by meaning, or infamous risk-scoring algorithms such as the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) in the US and the Harm Assessment Risk Tool (HART) in the UK. Considering the problems of algorithmic governance in the public sector, Maciej Kuziemski and Gianluca Misuraca write that ‘agenda setting bottlenecks are further perpetuated by misaligned incentives, goals and measures: public sector’s duties towards the citizens are at odds with those of the profit maximizing private sector.’<sup>25</sup> Despite the fact that profit maximisation as a goal of the private sector is nothing fundamentally new, the growth in the number of technological solutions offered by private developers and used in the public sector makes us look at it more closely. The lack of ethical basis for such decisions and the absence of stable standards for them can lead – and already have led – to growing inequality and undermining the value foundations of justice.

It should be emphasised that the problem is not that we can now examine the decision-making of judges with the help of technologies and successfully find errors, biases, or

22 T Sourdin, B Li, DM McNamara, ‘Court innovations and access to justice in times of crisis’ (2020) 9 Health Policy and Technology 448.

23 See details of such prediction models in N Giansiracusa, C Ricciardi, ‘Computational geometry and the U.S. Supreme Court’ (2019) 98 Mathematical Social Sciences 1-9; D Ji, P Tao, H Fei, Y Ren, ‘An end-to-end joint model for evidence information extraction from court record document’ (2020) 57 Information Processing and Management 102305; E Mumcuoğlu, CE Öztürk, HM Ozaktas, A Koç, ‘Natural language processing in law: Prediction of outcomes in the higher courts of Turkey’ (2021) 58 Information Processing and Management 102684.

24 C Dippel, M Poyker, ‘Rules versus norms: How formal and informal institutions shape judicial sentencing cycles’ (2021) 49 Journal of Comparative Economics 647.

25 M Kuziemski, G Misuraca, ‘AI governance in the public sector: Three tales from the frontiers of automated decision-making in democratic settings’ (2020) 44 Telecommunications Policy 101976.



incompetence of some judges. The call to consider technological tools in the context of attacks on the independence of the judiciary does not mean that we should abandon such studies. However, we must take them with caution. The problem is that we begin to overly trust the results of certain technological applications, primarily algorithms, perceiving them as objective, impartial, and error-free.

## 4 THE ALGORITHMISATION OF DECISION-MAKING

The introduction of algorithms in decision-making, including judicial ones, seems inevitable today. The processes of algorithmisation continue in public and private spheres, despite criticism and reasonable concerns about low-predictable consequences. Algorithmisation here means the application of smart algorithms or artificial intelligence in their synonymous understanding. The definition of them, moreover, may include the following: 'machine learning (ML) and deep learning (DL) techniques, such as classification (e.g. support vector machine), transfer learning, reinforcement learning, natural language processing, and recurrent neural network (e.g. long short-term memory)'.<sup>26</sup>

According to Gloria Phillips-Wren, and Lakhmi Jain, AI 'is being used in decision support for tasks such as aiding the decision maker to select actions in real-time and stressful decision problems; reducing information overload, enabling up-to-date information, and providing a dynamic response with intelligent agents; enabling communication required for collaborative decisions; and dealing with uncertainty in decision problems'.<sup>27</sup> Algorithms are therefore becoming an increasingly necessary part of decision-making. This leads to some decisions being completely automated, and in many other cases, we are increasingly relying on the prompts offered by AI. This happens in both the private and public spheres regarding the results of information searches sorted by algorithms, as well as in relation to the data processed by them and shown in a form convenient for perception.

Remarkably, people tend to perceive algorithmic decisions as more reliable compared to human ones. This perceived reliability is achieved by making algorithmic decisions seem factual, more unbiased, and freer from any outside influences. In addition, they are impersonal because a specific person, official, or judge, who voices and personifies the decision often does not stand behind the voiced decision in the case of AI.

In this sense, smart algorithms seem to be both depersonalised and collective systems. One of the studies that propose to replace individual decision-making systems with collective ones, based on pooling, emphasises that 'pooling independent opinions will often be more reliable and predictable than betting on an individual expert, thus promoting actual and perceived fairness'.<sup>28</sup> In addition, such systems as 'more reliable and predictable – due to lower outcome variation – are typically also perceived as more trustworthy'.<sup>29</sup> Therefore, it often seems that in AI systems, we can avoid the errors inherent in one person or group and, at the same time, we can have trustworthy algorithmic help.

26 S Lanagan, KKR Choo, 'On the need for AI to triage encrypted data containers in U.S. law enforcement applications' (2021) 38 *Forensic Science International: Digital Investigation* 301217. doi:10.1016/j.fsidi.2021.301217.

27 G Phillips-Wren, L Jain, 'Artificial Intelligence for Decision Making' in B Gabrys, RJ Howlett, LC Jain (eds), *Knowledge-Based Intelligent Information and Engineering Systems (KES 2006, Lecture Notes in Computer Science, 4252, Springer)* 532.

28 R Kurvers et al, 'Pooling decisions decreases variation in response bias and accuracy' (2021) 24 *iScience* 102740.

29 *Ibid.*

There are many expected benefits of implementing algorithms in decision-making other than reliability. Considering AI systems in the judiciary, Paweł Marcin Nowotko writes that their introduction 'is certainly advocated by factors such as shortening the time of examination of court cases, reduced court costs or the fact that when it comes to analytical capabilities such systems exceed perceptive skills of even the best of judges'.<sup>30</sup> An important advantage would be 'the gain in procedural speed with AI'.<sup>31</sup> The algorithms seem to be able to significantly improve other processes that are important for subsequent decision-making by judges. In particular, Maria Noriega argues that 'applying artificial intelligence within the interrogation room may minimize the two-fold bias occurring in the dynamic'.<sup>32</sup> She writes that the potential use of AI here may be due to programmable similarity since a smart algorithm can imitate racial, ethnic, and cultural similarities with the suspect.

On the other hand, there are many legitimate concerns about the deployment of AI in decision-making. This includes, for example, some concerns 'about the legality of digital evidence or machine-generated conclusions, particularly given that these decisions can differ for the same scientific evidence, just as they do with human experts'.<sup>33</sup> This is also reflected in concerns of a different kind, which 'is beyond the level of "access" to justice and is inherently relevant to the quality of judicial services. Essentially, the question is whether the use of artificial intelligence technology and algorithms in court systems could produce "just" outcomes'.<sup>34</sup> In other words, will the outcomes of algorithmic decision-making be fairer or at least as fair as those made by human judges?

The problems that arise here can be described as (1) those that arise from the need to interpret the law and (2) the problems of explaining the decisions made on the basis of law, especially in the motivational parts. In a broader sense, the question arises as to whether justice can be automated.

Kieron O'Hara sees law as a hermeneutic practice since 'rather than being of this categorical form, law is written, either as legislation or judgments, to be interpreted in a specific legal context'.<sup>35</sup> While the interpretation of law given by judges differs across legal systems and is not always what everyone agrees on, AI is not a good substitute here. The ability of algorithms to interpret law is more than questionable as such. The interpretation of the law is not mechanical work and is not something that can be programmed for the endless series of cases that the courts face. Indeed, there are simple cases, and there are those that can be grouped into typical cases. However, the variability in life cases and individual circumstances is higher than the variability that is acceptable for a working algorithm. In addition, the interpretation of law is based not only on data that can be fed to a smart algorithm but also on the experience and, to some extent, on the intuition of judges.

30 PM Nowotko, 'AI in judicial application of law and the right to a court' (2021) 192 *Procedia Computer Science* 2227.

31 WG de Sousa et al, 'Artificial intelligence and speedy trial in the judiciary: Myth, reality or need? A case study in the Brazilian Supreme Court (STF)' (2022) 39 *Government Information Quarterly* 101660.

32 M Noriega, 'The application of artificial intelligence in police interrogations: An analysis addressing the proposed effect AI has on racial and gender bias, cooperation, and false confessions' (2020) 117 *Futures* 102510.

33 AA Solanke, 'Explainable digital forensics AI: Towards mitigating distrust in AI-based digital forensics analysis using interpretable models' (2022) 42 *Forensic Science International: Digital Investigation* 301403.

34 T Sourdin, B Li, DM McNamara, 'Court innovations and access to justice in times of crisis' (2020) 9 *Health Policy and Technology* 451.

35 K O'Hara, 'Explainable AI and the philosophy and practice of explanation' (2020) 39 *Computer Law & Security Review* 105474.

As Katie Atkinson, Trevor Bench-Capon, and Danushka Bollegala rightly point out: 'Justice must not only be done, but must be seen to be done, and, without an explanation, the required transparency is missing. Therefore, explanation is essential for any legal application that is to be used in a practical setting'.<sup>36</sup> The ability of algorithms to explain the decision is also questionable. Particularly, there is a difference between the descriptive part and the reasoning part of a court decision. AI seems to be able to describe the solution but not to motivate. In other words, although, in most cases, we can follow how the algorithm arrives at a particular solution, it is not clear why it arrives at that solution.

Considering unintended AI influence, Laura Crompton writes that 'the influence AI can have on human agents, results in the inability to draw important lines between the point where human 'processing' ends, and AI processing starts. If we can't determine who or what makes a decision, how can we ascribe responsibilities for the respective action?'.<sup>37</sup> The impossibility of drawing a line between the human and algorithmic in decision-making is one of the significant shortcomings of algorithmisation, including in relation to judicial decisions. Another serious problem arising from this is the growing inability to determine who should be responsible for the decision. This, in turn, leads to a blurring of the concept of responsibility and ultimately affects the rule of law.

Further, context is important for decision-making. This can be a weakness affecting the independence of judges when it comes to political contexts, for example. However, this can be the strength of human decisions, the one that allows us to maintain justice in its deepest sense. Sandra Wachter, Brent Mittelstadt, and Chris Russell rightly doubt that fairness and contextual equality can be automated. They write that 'even if standard metrics and thresholds were to emerge in European jurisprudence, problems remain. Cases have historically been brought against actions and policies that are potentially discriminatory in an intuitive or obvious sense. Compared to human decision-making, algorithms are not similarly intuitive'.<sup>38</sup> The example of discrimination cases is also very illustrative because they must be felt to some extent in order to make a truly fair decision. In addition, in discriminatory cases, especially in relation to some types of discrimination, judges should understand social practices, stereotypes, and the reasons for such practices.

To sum up, it can be assumed in judicial decision-making, unlimited algorithmisation is unacceptable. Given that algorithms have firmly entered the private and public spheres of life, it is hardly worth considering abandoning them to prevent problems in decision-making. At the same time, the practice of making judicial decisions should remain such that it meets the standards of fairness in formal, procedural, and substantive terms.

## 5 CONCLUSIONS

Digitalisation affects every aspect of people's lives and societies today, and in this regard, the rule of law does not remain unaffected. Despite conflicting opinions about whether the implications of digitalisation for the rule of law are rather positive or rather negative, there are some threats that cannot be ignored. The potential weakening of the rule of law can be associated both with the impact of technologies itself, due to which the negative effect

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- 36 K Atkinson, T Bench-Capon, D Bollegala, 'Explanation in AI and law: Past, present and future' (2020) 289 *Artificial Intelligence* 103387.
- 37 M Kuziemski, G Misuraca, 'AI governance in the public sector: Three tales from the frontiers of automated decision-making in democratic settings' (2020) 44 *Telecommunications Policy* 101976.
- 38 S Wachter, B Mittelstadt, C Russell, 'Why fairness cannot be automated: Bridging the gap between EU non-discrimination law and AI' (2021) 41 *Computer Law & Security Review* 105567.

of encroachments on certain values and foundations is significantly aggravated, creating an increase in populism, undermining democracy and human rights, and with the specific negative consequences of the development of some of them, especially technologies of mass surveillance.

Today, courts are increasingly forced to evaluate actions in digital spaces and the consequences of using technological tools. The courts may be at the forefront of progress today, changing some of the established legal concepts. At the same time, the need to interpret complex phenomena that require technological and ethical expertise in addition to legal expertise and to balance certain rights and interests are difficult challenges for judges. This is especially difficult because judges are also involved in digital interactions and are influenced by technologies and their owners.

Influence on judges occurs in the personal sphere, reflecting involvement in the digital environment, successful profiling, and obtaining an accurate psychological profile, which is used to build a strategy in litigation based on the vulnerabilities and characteristics of specific decision-makers. Influence on judges also occurs through a public line, which makes it possible to widely disseminate artificially created opinions about trials and manipulate public expectations regarding decisions. All this, in turn, affects the independence of judges. An additional challenge to this independence is that technologies often belong to the private sector but are perceived as neutral and infallible, and are highly predictive of court decisions. This leads to a distortion of the essence of legal certainty and a shift of trust from the courts to certain technologies and their creators.

Algorithmic decision-making raises the question of whether the results will be fairer, or at least as fair, as those handed down by human judges. The problems that arise from this include both those related to the task of interpreting the law and those involving the need to explain decisions. The apparent reliability of algorithmic results is achieved due to the fact that they are perceived as based on facts, more impartial, impersonal, and free from external influences. However, we should not rely entirely on algorithms in the courts, as their ability to interpret the law and provide proper explanations for decisions is questionable. Besides, they lack an understanding of context, intuition, and social practices. Partial reliance on algorithms should also be used with caution, given the growing inability to draw a line between the human and algorithmic roles in decision-making and determine who should be responsible for the decision and to what extent.

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