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How Technology and AI Are Transforming Access to Justice

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Goda Strikaitė-Latušinskaja

Kaip technologijos ir dirbtinis intelektas transformuoja teisę į teisingumą

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To my mother, who sparked my curiosity for legal science,
and to everyone who helped me discover its beauty.

ABBREVIATIONS

AI	Artificial intelligence
CCJE	The Consultative Council of European Judges
CEPEJ	European Commission for the Efficiency of Justice
CJEU	Court of Justice of the European Union
CoE	Council of Europe
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
EU	European Union
Ed(s)	Editor(s)
FRA	European Union Agency for Fundamental Rights
IT	Information and communication technologies
OECD	Organisation for Economic Co-operation and Development
UN	United Nations

TABLE OF CONTENTS

INTRODUCTION 9

1. THE LEGAL AND REGULATORY FRAMEWORK GOVERNING THE USE OF TECHNOLOGIES AND AI IN EUROPEAN COURTS 25

1.1. The Evolution of Technology Integration in Europe 27

1.1.1. The Use of Technologies in the Public Sector 30
1.1.2. The Use of Technologies in Judicial Systems 34
1.1.3. The Lithuanian Regulatory Context on Technologies in Courts 47

1.2. Framing AI Integration in European Courts 49

1.2.1. Defining Artificial Intelligence (AI) 50
1.2.2. The European Approach to AI in Courts 55

2. FROM ADMINISTRATION TO ADJUDICATION: THE ROLE OF TECHNOLOGIES IN COURTS 65

2.1. Digitalisation of Courts' Administrative Functions 66

2.1.1. National Court Information Systems 70
2.1.2. E-Services Portals for Court Users 77
2.1.3. Remote Hearings 83
2.1.4. Asynchronous Court Processes 96

2.2. The Role of Technology in Judicial Decision-Making 100

2.2.1. AI and Adjudication: Enhancing or Superseding Judicial Decision-Making? 105
2.2.2. Current Applications of Technologies in Judicial Decision-Making 114
2.2.2.1. Algorithmic Risk Assessment in Judicial Systems 116
2.2.2.2. Decision-Support Systems in Judicial Practice 119
2.2.3. Assessing the Limitations of AI in Adjudication: The Divide Between Hard and Easy Cases 122
2.2.4. Categorizing Cases into Hard Ones and Easy Ones 124
2.2.4.1. The Ways of Resolving Cases Proposed by Legal Positivism 128
2.2.4.1.1. Syllogisms as a Method for Resolving Cases 130
2.2.4.1.2. Application of Analogy (Precedent) 134
2.2.4.2. Legal Realism and Hard Cases 138

2.2.4.2.1. Psychological Factors That Determine Decision-Making 139
2.2.4.2.2. Sociological Factors Determining Decision-Making 143

3. THE EFFECT OF TECHNOLOGY ON ACCESS TO JUSTICE: RESHAPING THE TRADITIONAL PARADIGM 146

3.1. The Concept of Access to Justice in Times of Digitalisation 147

3.1.1. The Foundations of Access to Justice 148
3.1.2. The Evolution of Access to Justice in the Digital Era 151
3.1.3. The Evolution of the Public Hearing in the Digital Age 155

3.2. Technology as a Tool to Enhance or Challenge Access to Justice 159

3.2.1. Strengthening or Limiting Access to Court and Legal Aid . 161
3.2.2. The Right to Be Advised, Defended, and Represented: Expanded or Undermined? 179
3.2.3. Judicial Independence and Impartiality: Reinforced or Threatened? 184
3.2.4. Challenges to Fairness, Judicial Reasoning, and Effective Remedies 197

CONCLUSIONS 205

LIST OF SOURCES 208

SANTRAUKA 236

LIST OF SCIENTIFIC PUBLICATIONS 255

LIST OF SCIENTIFIC EVENTS WHERE THE RESULTS OF THE DISSERTATION WERE PRESENTED 257

INFORMATION ABOUT THE AUTHOR 259

INTRODUCTION

Technological progress is advancing at an unprecedented pace, leading scholars and policymakers to describe the present period as the *Fourth Industrial Revolution*[1], with some discussions questioning whether subsequent developments should be labelled a *Fifth Industrial Revolution*[2]. Each industrial revolution brought profound social changes and opportunities, yet the current transformation is projected to have the greatest impact in terms of scale, spread and development potential. Consequently, it is essential to establish regulatory frameworks that would mitigate legal risks while fostering sustainable technological development.

This need for regulation of the use of technology is especially evident in the public sector, where technological innovations are increasingly encouraged. For example, back in 2016, the European Commission noted that digital public services reduce the administrative burden on businesses and citizens by making interactions faster, more convenient, and cheaper[3]. In addition, in 2018, in the Digital Strategy, European Commission set the goal of moving to a digital transformation administration[4]. However, certain risks with regard to the development of technology in the public sector were observed as well. For example, in its 2018 communication, the Commission emphasized that, on the one hand, the European Union must boost its technological and industrial capacity, while, on the other hand, it must ensure an appropriate ethical and legal framework, in line with Union values[5]. In October 2020, the European Parliament adopted a *Resolution on a Framework of Ethical Aspects of AI, Robotics and Related Technologies* which recommends the European Commission to propose a legislative action to harness the opportunities and benefits of AI, but also to ensure protection of

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[1] K. Schwab, *The Fourth Industrial Revolution* (Crown Publishing Group 2017).

[2] M. S. Noble, et al., 'The Fifth Industrial Revolution: How Harmonious Human–Machine Collaboration is Triggering a Retail and Service [R]evolution' (2022), 98, *Journal of Retailing* 2, pp. 199-208.

[3] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'EU eGovernment Action Plan 2016-2020 Accelerating the Digital Transformation of Government', COM/2016/0179 final.

[4] European Commission 'Digital Strategy – A Digitally Transformed, User-Focused and Data-Driven Commission', COM\2018\7118 final.

[5] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'Artificial Intelligence for Europe', COM/2018/237 final.

ethical principles[6]. In October 2021, the European Commission presented a proposal for the AIAct, where it was stated that: "In light of the speed of technological change and possible challenges, the EU is committed to strive for a balanced approach. It is in the Union interest to preserve the EU's technological leadership and to ensure that Europeans can benefit from new technologies developed and functioning according to Union values, fundamental rights and principles[7]". Balancing innovation with ethical considerations is a recurring theme in legislative efforts, yet, questions remain about how 'European' these technological interventions are in redefining the public service delivery.

Among technological advancements, AI stands out as a transformative force, particularly in justice systems. Acknowledged as one of the major developments in IT in recent years[8], it was also recognized as one of the three topics that bear great promise for improving the efficiency and quality of justice[9]. The EU's adoption of the *AI Act*[10] in 2024 exemplifies its commitment to balancing innovation with rights protection, thereby setting a global precedent. This legislative milestone underscores the urgent need for further legal research in order to address AI's evolving role in judicial and legal contexts.

The European Parliament, in its 2020 Resolution, highlighted the risks of automated decision-making, especially in sensitive areas like justice and law enforcement. The Resolution emphasized that technologies capable of producing automated decisions, thereby replacing the decisions traditionally made by public authorities, should be approached with the utmost caution, especially in the areas of justice and law enforcement. It further underscored

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6 European Parliament Resolution of 20 October 2020 with Recommendations to the Commission on a Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies (2020/2012(INL)), OJ C 404, 63–106.

7 Proposal for a Regulation of the European Parliament and of the Council Laying down Harmonised Rules on Artificial Intelligence (*Artificial Intelligence Act*) and Amending Certain Union Legislative Acts, COM/2021/206 final.

8 2019-2023 Action Plan European e-Justice, ST/5140/2019/INIT OJ C 96, 13.3.2019, pp. 9–32.

9 European Commission for the Efficiency of Justice (CEPEJ), 2018. Report on 'European Judicial Systems. Efficiency and Quality of Justice', Study Nº 26 [online]. Strasbourg: CEPEJ. Available at: <https://rm.coe.int/...ouv-18-09-2018-en/16808def9c> accessed 7 June 2024.

10 Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828, OJ L, 2024.

that fostering trust in justice institutions is critical for upholding the rule of law, necessitating a cautious approach to the use of technology in courts. While recognizing the potential benefits of AI, robotics, and related technologies in public authority decision-making, the Resolution warned of serious risks, grave misuse, such as mass surveillance, predictive policing and breaches of due process rights. Consequently, Member States should deploy such technologies only when their trustworthiness is thoroughly validated, and meaningful human oversight is ensured, particularly in cases involving fundamental rights[11]. Moreover, the Resolution stresses the importance of distinguishing the types of technologies appropriate for judicial use. Comparative analysis of technological innovations implemented in various courts could reveal how the level of technological intervention differs across jurisdictions and contribute to identifying the most suitable technologies for specific judicial contexts.

As technological advancements continue to accelerate, the concept of autonomous AI in adjudication has sparked significant debate about whether AI could replace human decision-making in judicial processes. While some stakeholders support this idea by indicating that, for example, AI judges would be no less reliable (and more cost-effective) than human judges, and, if an AI program someday passes a Turing test[12], we should in principle accept it as a judge[13], or that in this era of increasingly capable machines, it is not outrageous to expect at some stage, whether twenty or 100 years from now, that systems will outperform judges at their own game[14], whereas, others believe that while robots are unlikely to replace judges, automated tools are being developed to support legal decision making[15], and that assistant 'co-bots' rather than replacement robot judges could play a more important role

[11] European Parliament Resolution of 20 October 2020 with Recommendations to the Commission on a Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies (2020/2012(INL)), OJ C 404, pp. 63–106.

[12] The Turing Test, introduced by Alan Turing in 1950, evaluates a machine's ability to exhibit human-like intelligence. If a human evaluator cannot distinguish between the responses of a machine and a human during a conversation, the machine is said to have passed the test. In the context of AI in adjudication, passing the Turing Test implies that an AI could simulate human reasoning and decision-making indistinguishably from a human judge.

[13] E. Volokh, 'Chief Justice Robots', (2019), *68 Duke Law Journal*, pp. 1135-1192.

[14] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019), p. 235.

[15] J. Zeleznikow, 'Can Artificial Intelligence and Online Dispute Resolution Enhance Efficiency and Effectiveness in Courts', (2017), *International Journal for Court Administration*, *vol. 8*, No. 2, pp. 30-45 (p. 30).

in the future[16]. This debate underscores the necessity of analyzing the ethical, legal, and practical implications of AI in the judiciary, focusing on issues such as accountability, transparency, the preservation of human judgment, and the risks associated with entrusting critical decisions to autonomous systems. Earlier media reports, such as a 2019-dated article in *Wired*[17], suggested that Estonia was developing a 'robot judge' to resolve small (up to EUR 7000) civil disputes arising from contracts. However, this was officially clarified and corrected by the Estonian Ministry of Justice in 2022[18], which stated that no such project had been developed or planned. Instead, Estonia was focusing on automating procedural steps, for example, in the national order for the payment procedure, and on developing machine learning tools for supporting tasks such as transcription and anonymisation of court documents. Nonetheless, the initial reporting contributed to the public discourse about the potential and risks of AI in adjudication. In contexts where judicial systems often face a massive backlog of court cases, these debates raise important questions about whether and how certain types of cases might appropriately be delegated to AI systems in the future. Thus, a focused analysis of AI in judicial decision-making is essential both to guide its development and to determine whether, and, if so, which, cases may be suitable for delegation to AI.

The COVID-19 pandemic accelerated the digitalisation of judicial processes worldwide. As courts are adapting to new technological realities, questions arise about the extent to which this digital shift should remain permanent. In a world increasingly accustomed to online services, the traditional notions of justice administration risk becoming outdated, necessitating a reevaluation of technology's role in the courts. The rapid shift towards digital solutions in the judiciary calls for a deeper exploration of how technology can best be integrated into courts while preserving the core values of justice and ensuring fair and accessible legal processes, as well as an evaluation of how remote hearings have already affected access to justice. These developments show both the opportunities and risks of technological

[16] T. Sourdin and R. Cornes, 'Do Judges Need to Be Human? The Implications of Technology for Responsive Judging' In: T. Sourdin and A. Zariski (eds.), *The Responsive Judge* (2018), pp. 87–119.

[17] E. Niiler, 'Can Al Be a Fair Judge in Court? Estonia Thinks So' (WIRED, 25 March 2019), available at: <https://www.wired.com/story/can-ai-be-fair-judge-court-estonia-thinks-so/> accessed 23 May 2025.

[18] Estonian Ministry of Justice, 'Estonia Does Not Develop AI Judge' (16 February 2022) https://www.justdigi.ee/en/news/estonia-does-not-develop-ai-judge accessed 23 May 2025.

transformation in judicial systems, raising fundamental questions about their compatibility with access to justice.

Access to justice, guaranteed by Article 47 of the Charter of Fundamental Rights of the EU[19] and reinforced by primary EU law, is a core principle essential for the functioning of democracy and maintaining public trust in courts. In particular, Article 67(4) of the Treaty on the Functioning of the EU states that the Union shall facilitate access to justice, whereas Article 81(2)(e) indicates the need to adopt measures, particularly when necessary for the proper functioning of the internal market, aimed at ensuring an effective access to justice[20]. Moreover, access to justice is both a component and a prerequisite of the rule of law. However, the integration of technologies into court operations presents challenges to this fundamental right. Ensuring that access to justice is upheld in the face of technological advancements is crucial for strengthening democracy and confidence in the judiciary. To assess whether the evolving use of technology in court operations supports or undermines access to justice, a thorough examination is necessary.

The UN Development Programme, in its 2022 report, emphasized that the complexity of human rights analysis of e-justice is exactly why it is critical that high priority is placed on examining the explicit and unintended impacts of digital tools on individuals and groups[21]. This thesis aligns with that priority, exploring how judicial technology reshapes access to justice in the digital age. Such an analysis is essential to ensuring that the digital transformation of courts enhances justice delivery without compromising human rights. Scholarly engagement with these issues has begun to emerge, but remains partial and fragmented.

The **relevance of this dissertation and its scientific novelty** lie in addressing the underexplored legal challenges arising from the integration of technology into judicial systems and its impact on the principle of access to justice. At the national level, there is a significant gap in research examining how the adoption of technological innovations in courts aligns with or potentially undermines the core elements of access to justice. While a few monographs explore aspects of technology in Lithuanian courts – such as V.

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[19] *Charter of Fundamental Rights of the European Union*, OJ 2012 C 326.

[20] Treaty on the Functioning of the European Union, OJ 2012 C 326.

[21] *The United Nations Development Programme E-Justice: Digital Transformation to Close the Justice Gap*, 2022, p. 13, available at: <https://www.undp.org/sites/g/files/zskgke326/files/2022-06/E%20justice-Report%2005.pdf> accessed 7 June 2024.

Nekrošius and others[22] on the use of electronic means in civil processes, V. Vėbraitė[23] on the impact of the COVID-19 pandemic on Lithuanian civil justice, V. Vėbraitė and G. Strikaitė-Latušinskaja[24] on the digitalisation of Lithuanian courts, or D. Murauskas[25] on the classification of algorithms in judicial decision-making and their potential risks to the right to a fair trial – yet, no comparative analysis of the technologies employed in courts in other jurisdictions and their implications for access to justice has been conducted. Moreover, no research has examined whether court modernization has altered the traditional implementation of the principle of access to justice.

Recent works by A. Juškevičiūtė-Vilienė contribute to this emerging scholarship by engaging with the challenges posed by AI to the constitutional interpretation of access to justice. In her article[26] dating back to 2020, she offers a concise analysis of the advantages and disadvantages of electronic justice, raising important questions about whether the use of AI-based tools and online dispute resolution systems aligns with the constitutional principles underpinning the right to a fair hearing. Meanwhile, in her 2024 article[27], she explores the impact of AI on legal theory – particularly on legal positivism – and how technological developments are reshaping legal education, research, and professional practice. Additionally, the recent comparative study by A.

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[22] V. Nekrošius, et al., 'Elektronizavimo priemonių naudojimas spartinant Lietuvos civilinį procesą' [Use of Means of Digitalisation for Speeding up the Lithuanian Civil Process] (2015) *Teisė 93*, pp. 29-45.

[22] Law Amending Articles 36, 37, 93, 94, 120 of the Law on Courts of the Republic of Lithuania and Supplementing the Law with Article 37-1, *Valstybės žinios*, 2011, No. 85-4128, available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403061> accessed 7 June 2024.

[23] V. Vėbraitė, 'Impact of COVID-19 Pandemic on Lithuanian Civil Justice' in B. Krans and A. Nylund (eds.), *Civil Courts Coping with COVID-19* (2021), pp. 123-127.

[24] V. Vėbraitė and G. Strikaitė-Latušinskaja, 'Digitalisation of Justice in Lithuania'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 223-234.

[25] D. Murauskas, 'Dirbtinis intelektas priimant teismo sprendimą – algoritmų klasifikavimas remiantis teisinio kvalifikavimo stadijomis' [Artificial Intelligence in Passing Court Verdicts: Classification of Algorithms Based on Stages of Legal Qualification], (2020) *Teisė 115*, pp. 55-69.

[26] A. Juškevičiūtė-Vilienė**,** 'Artificial Intelligence and the Constitutional Right of Access to Justice = Dirbtinis intelektas ir konstitucinė teisė į teisingumą' (2020) *Acta Universitatis Lodziensis. Folia Iuridica 93*, pp. 117–136. DOI: 10.18778/0208-6069.93.08.

[27] A. Juškevičiūtė-Vilienė, 'Legal positivism, AI, and the Modern Legal Landscape: Challenges in Education, Research, and Practice' (2024) *Acta Universitatis Lodziensis. Folia Iuridica 109*, pp. 1–17. DOI: 10.18778/0208-6069.109.02.

Limantė and M. Šukytė[28] on AI deployment in the courts of the Baltic States provides valuable insights into the current practices and future directions, highlighting both opportunities and constitutional challenges that arise in the region's pursuit of digital justice. Complementing these perspectives, M. Zalnieriute's[29] study '*Technology and the Courts: AI and Judicial Impartiality*' addresses how the use of AI may influence judicial impartiality, which is one of the core components of the right to a fair trial.

A particularly notable recent contribution is the 2025 speech by Prof. V. Mizaras, delivered at the Opening of the Judicial Year at the ECtHR[30]. In this speech, he distinguishes between three conceptual models of AI in the judiciary: "argument development AI", "supervised e-judges", and "autonomous e-judges". He argues that only those models which retain a human-judge-in-the-loop can meet the standards of fairness, transparency, and accountability, required by democratic legal systems. V. Mizaras identifies the risks posed by full automation – such as the erosion of adversarial procedure, lack of reasoned justification, and threats to judicial independence – and underscores that any use of AI in adjudication must preserve the core human elements of judgment, empathy, and discretion. This position resonates strongly with the present dissertation's emphasis on evaluating whether court modernization efforts preserve the substance of the right to access justice, rather than merely pursuing procedural efficiency.

When reviewing the literature of foreign authors, it becomes evident that there are more extensive studies on the use of technologies, including AI, in courts and their compliance with access to justice. Scholars such as R. Susskind[31] have explored topics like the use of AI, asynchronous court processes, and the potential roles of virtual and augmented reality in judicial

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[28] A. Limantė and M. Šukytė, 'Comparative Insights and Future Directions of AI in the Courts of the Baltic States' (2025) *International Journal of Law and Information Technology 33*, DOI: 10.1093/ijlit/eaaf002.

[29] M. Zalnieriute, 'Technology and the Courts: Artificial Intelligence and Judicial Impartiality', Submission to the Australian Law Reform Commission, Review of Judicial Impartiality (2021). DOI: 10.2139/ssrn.3867901.

[30] V. Mizaras, 'Artificial Intelligence and the Right to a Fair Trial' (ECHR, 31 January 2025), available at: <https://www.echr.coe.int/documents/d/echr/speech-20250131-mizaras-jy-eng> accessed on 5 May 2025.

[31] R. Susskind and D. Susskind, *The Future of the Professions: How Technology Will Transform the Work of Human Experts, Updated Edition* (Oxford University Press, 2022); R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019); R. Susskind, *Tomorrow's Lawyers: An Introduction to Your Future* (Oxford University Press, 2023).

systems. C. Xi[32] analyzed asynchronous court proceedings, N. Mole and C. Harby[33] explored remote hearings, whereas T. Sourdin[34] contributed by categorizing technologies reshaping the justice system into three groups and analyzing their respective impacts. F. Bell, L. B. Moses, M. Legg, J. Silove, and M. Zalnieriute[35] examined the impact of AI on judicial values, including access to justice and procedural fairness in their 2022 report for the *Australasian Institute of Judicial Administration*. Additionally, M. Zalnieriute and F. Bell[36] reflected on the ways how technological change is influencing judicial identity and institutional dynamics.

Taken together, these contributions demonstrate increasing attention to the digitalisation of courts and the use of AI in judicial decision-making. Yet, they also reveal unresolved scientific-level problems. First, existing research remains fragmented, while addressing individual technologies or procedural reforms without developing a systematic, doctrinal framework for assessing their cumulative impact on access to justice. Second, there is little comparative analysis linking national experiences with supranational standards, thus leaving open the question of whether court modernization aligns with the EU values and fundamental rights. Third, the effect of digital and AI tools on specific components of access to justice, such as impartiality, public hearings, availability of remedies, or legal aid, has not been comprehensively analyzed as of the time of completing this thesis. No existing research provides a comparative or doctrinally grounded assessment of these challenges. This lack of conceptual clarity and systematic evaluation constitutes the core scientific problem of this dissertation: how should access to justice be conceptualized and safeguarded in the context of technological transformation of courts? This dissertation seeks to address that gap by thoroughly analyzing how various

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[32] C. Xi, 'Asynchronous Online Courts: The Future of Courts?' (2023) *Oregon Review of International Law*, Vol. 24, pp. 39-94.

[33] N. Mole and C. Harby, *The Right to a Fair Trial: A Guide to the Implementation of Article 6 of the ECHR* (CoE, 2006).

[34] R. Susskind and D. Susskind, *The Future of the Professions: How Technology Will Transform the Work of Human Experts, Updated Edition* (Oxford University Press, 2022); R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019); R. Susskind, *Tomorrow's Lawyers: An Introduction to Your Future* (Oxford University Press, 2023).

[35] F. Bell et al., *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (The Australasian Institute of Judicial Administration Incorporated, Australia, published June 2022; revised and republished December 2023).

[36] M. Zalnieriute and F. Bell, 'Technology and the Judicial Role' In: G. Appleby and A. Lynch (eds.), *The Judge, the Judiciary and the Court: Individual, Collegial and Institutional Judicial Dynamics in Australia* (Cambridge University Press, 2021).

technologies affect the principle of access to justice and its key components. Firstly, none of the aforementioned authors conducted a comparative analysis of how the provision of the elements of access to justice is affected by the application of different levels of technology in courts, ranging from basic technologies used in administrative functions to advanced technologies applied in the administration of justice. Secondly, the research in this dissertation is grounded in the evolving nature of social relations, technological advancements, and the latest experiences, leading to the formulation of original conclusions and proposals. Thirdly, part of the research is conducted in the context of Lithuania, which adds a unique national dimension to the study. Finally, this thesis aims not only to fill the academic gap by comprehensively assessing the interplay between access to justice, its elements, and the use of specific technologies in courts but also, in the author's view, to make a practical contribution to legal scholarship and judicial practice. It is designed to assist judges in understanding how technology operates, impacts fundamental human rights, and influences decision-making processes, while also deepening their understanding of the peculiarities of adjudication in the context of technological advancements. Furthermore, it seeks to prepare judges for the integration of new technologies into judicial systems. Additionally, the dissertation will serve as a valuable resource for the public, offering insights into the global use of technology in courts and helping individuals better understand whether their rights are being upheld in specific cases. Moreover, it will support policymakers and legal professionals in determining which technologies to implement in specific jurisdictions and ensuring that those adopted align with the legal system and the principle of access to justice.

The **object** of the dissertation research is defined by the title of the topic. The study focuses on the interplay between the integration of technology in courts and the principle of access to justice, examining how various technologies, ranging from administrative tools to advanced AI systems, affect the key elements of access to justice, such as the right to a fair trial, legal aid, the independence and impartiality of tribunals, public hearings, and effective remedies. This relationship is explored within the broader context of legal systems, technological advancements, and the evolving nature of judicial processes in the digital era.

For the purposes of this dissertation, the term *technology* is used as an umbrella term for contemporary digital technologies applied in judicial systems, including case management systems (such as *LITEKO*), e-services portals (like e.teismas.lt), and tools for conducting remote or asynchronous hearings. This corresponds to the usage found in EU policy documents, where

'digital technologies in judicial proceedings' are understood as information and communication technologies such as videoconferencing, electronic case management, interconnection of registers, and secure electronic transmission channels[37]. However, given the comparative scope of this research, this term also extends to more advanced data-driven and algorithmic tools experimented with in some jurisdictions (e.g., *COMPAS* in the United States, *Prometea* in Argentina, and *Smart Courts* in China), which do not always fall neatly into the EU's category of digital technologies or into the AI-specific category. AI, due to its distinctive nature and implications, is treated as a separate category and is analyzed in depth throughout the dissertation, with dedicated attention in Section 1.2. This distinction avoids conflating general digitalisation with AI-specific issues and ensures terminological precision across the research.

In this dissertation, access to justice is understood not merely as formal access to courts, but as a multifaceted principle encompassing several interrelated components. Following EU law, ECHR case law, Lithuanian Constitutional Court jurisprudence, and doctrinal scholarship, these components include the right to a fair trial, which entails the independence and impartiality of judges, the guarantee of a fair and public hearing, the rights to legal aid and representation, and the right to an effective remedy. For the purposes of this dissertation, this broad notion of access to justice is operationalized through these elements, each of which is examined separately in relation to technological transformation. This approach enables a structured analysis: instead of treating access to justice as an abstract principle, the dissertation disaggregates it into concrete dimensions that can be evaluated against specific technological interventions.

To ensure the accuracy of the dissertation research and considering its specific limitations, this study focuses exclusively on civil and administrative court systems. Due to the distinct nature of criminal cases and the broader scope of human rights considerations applicable to criminal judicial processes, these are excluded from the analysis. Additionally, issues related to the application of technology and access to justice in non-judicial bodies and alternative dispute resolution mechanisms fall outside the scope of this research.

[37] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union. A Toolbox of Opportunities, COM/2020/710 final, 2020.

The dissertation primarily examines the Lithuanian legal system, with particular emphasis on technological innovations in Lithuanian courts. However, when analysing more advanced technology, especially in the context of adjudication, a comparative approach becomes even more essential, as it allows for the examination of jurisdictions that have already implemented or experimented with such technologies. This broader perspective provides valuable insights into both the potential benefits and challenges, helping to anticipate legal, ethical, and procedural implications.

Finally, this research investigates the interplay between technology and the judicial processes of decision-making, as well as the administrative functions of courts, aligning with the elements of access to justice analyzed throughout the dissertation. It does not extend to the execution of decisions, enforcement processes, or the application of technology in non-judicial bodies or alternative dispute resolution mechanisms. This focused approach ensures a comprehensive and precise examination of how various technologies – whether supporting administrative functions or directly involved in adjudication – impact access to justice.

The **aim** of this dissertation research is to analyze, by using theoretical and practical examples, the effect of technological advancements on the principle of access to justice, with a focus on how they reshape the traditional paradigm of justice delivery. This includes examining how various levels of technology – ranging from tools supporting administrative court functions to advanced systems involved in judicial decision-making – transform the key elements of access to justice. These elements include the right to a fair trial, encompassing the independence and impartiality of tribunals and a fair and public hearing, access to legal aid, the right to be advised, defended, and represented, and the right to an effective remedy.

By centering on the Lithuanian legal system while incorporating comparative insights from other jurisdictions, this research aims to provide a comprehensive understanding of how technological innovations redefine the concept and implementation of access to justice. It seeks to explore both the opportunities and challenges posed by digitalisation, highlighting how courts can modernize judicial processes while maintaining fairness, transparency, and equality. The study ultimately aims to develop insights and recommendations for ensuring that technological integration in courts aligns with the evolving principles of access to justice.

To achieve this aim, the research sets out the following **objectives**:

Firstly, to examine the legal and regulatory framework governing technology and AI in European courts by identifying and analyzing key institutional and policy instruments, namely, the role of European institutions,

the European rights-driven regulatory approach, the legal definition of AI in the judicial context, the balance between innovation and fundamental legal principles, particularly in the context of the ongoing digital transformation of justice.

Secondly, to analyze the use of technology in courts by categorizing its applications into administrative functions and judicial decision-making processes, and assessing how these advancements reshape the traditional paradigms of justice delivery.

Thirdly, to examine the perspectives on using AI systems to support or replace judges in adjudication within European countries, and, through the application of the concept of hard and easy cases, to evaluate the current limitations of state-of-the-art AI in judicial decision-making.

Fourthly, to evaluate the transformative effect of technology on access to justice, both in enhancing its elements and creating new challenges, by analyzing the synergy between access to justice and practical applications of technology in courts, with a detailed examination of the impact on each element.

The aim, by virtue of being aligned with the tasks of the dissertation, leads to the following **statements to be defended**:

1) AI in judicial decision-making must remain a supportive tool, in line with the European approach which reserves the final authority to judges, while, in practice, its most appropriate role is assisting with easy cases.
2) The integration of technology in courts can both strengthen and weaken judicial independence, impartiality, reasoning and fairness, thus making judicial discretion, transparency of technological operation and human oversight essential.
3) Digitalisation of courts has expanded access to courts by reducing geographical, financial, and informational barriers, while also improving access to legal aid; however, it has also introduced challenges, such as digital literacy disparities and unequal access to resources, which disproportionately affect vulnerable groups.
4) The integration of technology into judicial proceedings can enhance access to legal representation by empowering both legal professionals and self-represented litigants, yet, reliance on opaque AI systems risks undermining the adversarial process and limiting effective legal representation.

The dissertation research is comprehensively based on general **methods** of scientific knowledge. Among the multiple research methods employed in this thesis, the following main theoretical and empirical approaches were used,

each with specific objectives and research questions in mind. The literal (textual) method was applied to gain a primary understanding of the content of the law and to identify accurate legal concepts. It served the purpose of unfolding the main research concepts (such as, for example, access to justice, fair trial) and enabled the clarification of how these concepts are used in different legal and doctrinal contexts. The systemic (contextual) and analytical methods were employed, *inter alia*, to reveal the European position on the use of technology in the public sector and in courts, as well as the use of AI in courts. These methods were used to situate the relevant legal notions within a broader system of ideas and values and to examine the conceptual interdependencies among the elements of access to justice. They helped answer the question of how technological innovations interact with existing legal principles and doctrines. The historical method was employed throughout the dissertation to trace the evolution of both institutional frameworks and fundamental legal concepts. On the institutional side, it was applied, for example, to examine how digital infrastructures in Lithuania, such as LITEKO and the e-services portal (e.teismas.lt), developed over time and reshaped judicial processes. On the conceptual side, it was used to analyze how core procedural guarantees, such as the principle of public hearings, have transformed in the digital age. More broadly, this method enabled the identification of patterns of continuity and change in the interaction between technological innovation and the right of access to justice, demonstrating how historical trajectories condition present challenges and inform future opportunities. The comparative method was applied to evaluate how different jurisdictions integrate technology into judicial processes and to identify both opportunities and risks for the principle of access to justice. This approach was implemented on two levels. First, with regard to digitalisation of courts' administrative functions, the analysis focused on Lithuanian initiatives such as the *LITEKO* court information system, the national e-services portal (e.teismas.lt), and the practice of remote hearings. These examples were chosen not only because of the author's direct familiarity with the Lithuanian system, but also because they represent a wider trend across many European jurisdictions of introducing similar platforms for managing court processes. In addition, asynchronous court processes, while not yet implemented in Lithuania, were examined through reference to reforms in England and Wales and the pioneering Chinese Internet Courts, in order to assess whether such practices could enhance the efficiency and accessibility in the Lithuanian and wider EU context. Second, with respect to the administration of justice, the dissertation examined jurisdictions where developments are most advanced. The study considered algorithmic risk assessment tools (such as *COMPAS* in

the USA) and judicial decision-support systems (such as *Prometea* in Argentina and China's *Smart Courts*). Since such systems are not currently deployed in Lithuania or any other EU Member State, these jurisdictions were selected as comparative case studies with the objective of exploring the potential effects of advanced technologies on the core components of access to justice and anticipating the regulatory challenges that European courts may soon be facing. Taken together, this comparative analysis serves three purposes: (1) it reveals good practices with potential for adaptation in Lithuania and the EU, (2) it exposes risks and limitations that require careful regulatory attention, and (3) it provides a broader understanding of how varying levels of technological integration, from digital administration to AI-driven adjudication, interact with and potentially reshape the principle of access to justice. Finally, logical and deductive methods were applied throughout the dissertation to structure the arguments presented in the thesis and formulate its conclusions. These methods supported the reasoning process by connecting empirical findings and doctrinal analysis, thereby answering the overarching question of how technological advancements are reshaping the concept of access to justice, particularly in the context of judicial processes and the evolving role of technology in courts. In addition, the teleological method was applied to interpret legal provisions and policy documents in light of their broader aims and objectives, particularly when the wording was ambiguous or open-ended. This was especially relevant in analyzing the EU legislation and soft-law instruments on the digitalisation of courts and the integration of AI. The teleological approach enabled this dissertation to clarify how such provisions should be understood in relation to the overarching purpose of safeguarding access to justice. In this sense, teleological reasoning served as a bridge between textual analysis and normative evaluation, ensuring that the assessment of technological innovations in courts was consistently measured against the foundational principles of access to justice.

The **structure** of the dissertation is in line with the object of the research and is consistent with the dissertation research tasks. The dissertation is composed of the introduction, the main body constituting the research that is divided into three parts, and conclusions.

Taking this into account, the first part of the study is devoted to examining the legal and regulatory framework governing technology and AI in European courts, with a particular focus on the institutional and policy instruments shaping their implementation. It begins by exploring the broader context of digital transformation in public governance and judicial systems, while distinguishing the European rights-driven regulatory model from the market-driven approach of the United States and the state-controlled model of

China. The chapter then delves into the role of key European institutions – including the European Council, the Council of the EU, the European Commission, the European Parliament, and the CEPEJ – in shaping policies that seek to balance technological innovation with the protection of fundamental legal principles. A critical aspect of this analysis is the evolving tension between efficiency gains and the preservation of judicial independence, due process, and human rights, as European courts increasingly integrate digital tools, automation, and AI. By providing a structured examination of regulatory initiatives, challenges, and policy responses, this chapter lays the groundwork for evaluating the opportunities and risks associated with AI in the judiciary and assessing the extent to which its deployment aligns with the rule of law and access to justice.

The second part explores the transformative role of technology in courts, spanning from administrative functions to judicial decision-making. It begins by analyzing the digitalisation of the courts' administrative functions, focusing on key technological advancements, such as the *LITEKO* Court Information System, the Lithuanian e-services portal (e.teismas.lt), remote hearings and the potential introduction of asynchronous court processes. The discussion then shifts to the impact of AI on judicial decision-making, assessing whether AI enhances or potentially supersedes human adjudication.

The second half of this part explores real-world applications of technology in courts, including algorithmic risk assessment tools like *COMPAS*, as well as AI-driven decision-support systems such as *Prometea* and China's *Smart Courts*. A critical evaluation follows, highlighting the limitations of AI in adjudication, particularly in complex cases that require human judgment. The final sections introduce the categorization of cases into 'hard' and 'easy' ones, while drawing from legal positivism and realism. Theoretical perspectives on case resolution, including syllogistic reasoning, analogical application of precedents, and the influence of psychological and sociological factors on judicial decision-making, are analyzed in order to assess the extent to which AI can (or should) be integrated into adjudicatory processes.

The third part examines how technology is reshaping the traditional paradigm of access to justice, by assessing both its potential to enhance and its risks of undermining fundamental legal rights. It begins by exploring the conceptual foundations of access to justice, tracing its evolution in the digital era and analyzing how technological advancements are redefining key legal principles, such as the public hearing.

The discussion then turns to the dual role of technology as both a facilitator and a potential barrier to access to justice. It assesses whether digital tools strengthen or limit access to courts and legal aid, by questioning whether technology expands or erodes the right to be advised, defended, and represented. Further, it examines the impact of judicial technology on judicial independence and impartiality, considering whether technological intervention reinforces or threatens these core judicial values. Finally, the chapter evaluates the implications of technology on fairness in judicial proceedings, identifying emerging risks and safeguards necessary to ensure that digital transformation aligns with the principles of access to justice.

1. THE LEGAL AND REGULATORY FRAMEWORK GOVERNING THE USE OF TECHNOLOGIES AND AI IN EUROPEAN COURTS

The future has already arrived. It's just not evenly distributed yet[38].

The extent and intensity of technology integration in courts vary significantly across countries, largely due to differences in legal regulation. As digital transformation reshapes public and judicial institutions worldwide, three competing regulatory approaches have emerged: the American market-driven model, the Chinese state-driven model, and the European rights-driven regulatory model[39]. The United States fosters rapid innovation through private-sector initiatives with minimal regulatory intervention. China, in contrast, employs a state-controlled model, leveraging centralized oversight and mass data utilization. Meanwhile, Europe has positioned itself as a leader in responsible, human-centric AI adoption, prioritizing fundamental rights, judicial independence, and ethical governance.

This chapter examines the European perspective on technology integration, particularly within public sector governance and judicial systems. It analyzes how European institutions, including the European Council, the Council of the EU, the European Commission, the European Parliament, and the CEPEJ, have shaped policies and initiatives aimed at modernizing justice through digital transformation. A critical aspect of this modernization is the ongoing tension between efficiency gains and the protection of core legal principles, as European courts increasingly adopt digital tools, automation, and AI.

A key focus of this chapter is AI in judicial systems. It explores how AI is defined in the legal context, as well as the EU's regulatory stance on its deployment in courts. Unlike the market-driven approach of the USA, which prioritizes technological advancement with limited oversight, or China's state-controlled AI deployment, which integrates technology into governance with extensive state intervention, the European model seeks to balance innovation with the protection of fundamental rights. Its focus is not merely on permitting

[38] W. Gibson, 'The Science in Science Fiction' on *Talk of the Nation*, NPR (30 November 1999, Timestamp 11:55) Available at: <http://www.npr.org/templates/story/story.php?storyId=1067220> accessed 7 June 2024.

[39] See more about the three digital empires and their competing models in A. Bradford, *Digital Empires: The Global Battle to Regulate Technology* (Faculty Books, 2023).

AI use but on ensuring that its application enhances, rather than undermines, the rule of law and, in particular, the right of access to justice.

By tracing the evolution of digital transformation in European judicial systems, this chapter provides a comprehensive framework for understanding the opportunities, risks, and regulatory responses shaping the future of justice in the digital age. Taken together, these developments show a distinctly European, rights-driven trajectory: digitalisation of court administration is encouraged, while AI in adjudication is approached cautiously and with safeguards. This framing provides the baseline for the dissertation's central inquiry, i.e., whether, and how, these technologies reshape access to justice without eroding fair trial guarantees.

Although the adoption of the world's first binding document regulating AI – the EU AI Act[40] – represents a significant step forward in better regulating the technology and mitigating its risks, many of its provisions, particularly those concerning the judicial sector, will come into full application only gradually. This fragmented regulatory landscape highlights the need to analyze not only binding legal instruments but also soft-law sources and policy documents. After all, soft-law instruments, or internal policies, are described as the new *modus operandi* of modern technology governance[41].

Furthermore, Lithuania, like most other EU Member States, currently lacks binding legal regulation specifically governing the use of AI in judicial decision-making. Although strategic initiatives supporting the digitalisation of courts *do* exist, they are mostly policy-based, rather than legislative in nature. As a result, it becomes essential to examine how the EU seeks to regulate these issues in order to identify applicable standards and emerging best practices, and to ensure that national systems remain aligned with broader European developments and maintain their competitiveness in an increasingly digital and innovation-driven environment. Accordingly, this chapter adopts a proactive analytical approach, seeking to identify the emerging legal principles and standards essential for the lawful, ethical, and human-centric integration of technologies in judicial systems.

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[40] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828, OJ L, 2024.

[41] A. Limantė and M. Šukytė, 'Comparative Insights and Future Directions of AI in the Courts of the Baltic States', (2025) *International Journal of Law and Information Technology*, Volume 33.

This chapter therefore combines both binding and non-binding sources, including historical developments and soft law instruments, and is intended to contextualize the European regulatory environment. The purpose of this overview is not descriptive analysis *per se*, but rather to provide the necessary background for evaluating how technological innovation interacts with judicial systems, and what effect it has on the principle of access to justice.

1.1. The Evolution of Technology Integration in Europe

Technologies that will shape the European economy and society can be divided into ones that are enabling ones, such as AI, big data analytics, quantum and high-performance computing, internet of things, NextGen internet and infrastructure, cloud computing, digital platforms, distributed ledger technology and high-impact applied ones, such as advanced robotics, autonomous mobility, smart cities, additive manufacturing, virtual and augmented reality, digital energy innovation and sustainability, digitally enabled biotechnologies, and advanced materials[42]. It is likely that, due to the extremely wide application possibilities of technologies, more and more functions will be delegated to them in the future.

For a long time, the legal field remained largely untouched by technology; however, we can recently see a tendency that more and more technological applications are being introduced into the daily lives of lawyers. Now, it is even being predicted that legal institutions and lawyers will change more radically in less than two decades than they have over the last two centuries[43]. Already, machine learning systems can predict judicial decisions as accurately as human lawyers, extract key terms from agreements, identify significant documents in litigation bundles and in due diligence exercises, and forewarn organizations of impending legal risks[44]. What is of interest, at first, is that the private sector was deemed to be a leading one when talking about the application of innovations, however, lately, the use of technology has been especially encouraged in the public sector[45]. Of course, one of the reasons why

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[42] European Commission, Directorate-General for Communications Networks, Content and Technology, Shaping the Digital Transformation in Europe, Publications Office, 2020, 10.

[43] R. Susskind, *Tomorrow's Lawyers: An Introduction to Your Future* (Oxford University Press, 2017).

[44] R. Susskind and D. Susskind, *The Future of the Professions: How Technology Will Transform the Work of Human Experts, Updated Edition* (Oxford University Press, 2022), p. 32.

[45] See, for example, L. Vesnic Alujevic and F. Scapolo, *The Future of Government 2030+: Policy Implications and Recommendations* (Publications Office of the

the public sector is attractive to deployment of technology is the amount of data accumulated, which is the driving force behind technology; however, this sector is more bureaucratic and requires more caution to ensure a proper quality of services, as this has a direct impact on people's trust in the state in general.

Technology intrusion is prominent in courts as well. As one of the most famous legal futurists R. Susskind has predicted, by 2030, and possibly much sooner, our courts around the world will have been transformed by technologies that have not yet been invented, based on the scale of the financial investment and human effort being directed at court technology and at AI[46]. According to him, in general, technology can affect the work of courts in two broad ways. On the one hand, there is automation involving improvement of various processes – using systems to improve, refine, streamline, optimize, and turbo-charge the traditional ways of working. On the other hand, there is transformation – using technology to allow us to perform tasks and deliver services that would not have been possible, or even conceivable, in the past – which is manifested through doing new things, rather than old things in new ways[47]. Earliest technological innovations in courts indeed were more directed at supporting the way the courts operate, whereas, within the last few decades, court systems were digitalised more throughout, by focusing on technologies to undertake activities traditionally carried out by humans.

The European approach to integrating technology reflects a dual purpose: advancing innovation while safeguarding fundamental rights. The EU, the CoE, and related institutions have long promoted the adoption of technology as a means of modernizing public and judicial services, with an emphasis on maintaining trust, ethical standards, and transparency.

European Union 2019); European Commission White Paper on Artificial Intelligence – A European Approach to Excellence and Trust, COM(2020) 65 final. European Commission, Brussels, 2020; Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'A European Strategy for Data', COM/2020/66 final; Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Shaping Europe's Digital Future', COM/2020/67 final.

[46] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019), pp. 253.

[47] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019), pp. 33-36.

Digital transformation is a cornerstone of the EU's strategic priorities, exemplified by initiatives like the *2030 Digital Compass*[48] and the *Digital Single Market Strategy*[49], which aim to harmonize digitalisation across the Member States, reduce administrative burdens, and enhance accessibility to public services. Central to these efforts is a commitment to ethical standards and human-centric governance, as reflected in the *AI Act*[50] and the *European Strategy for Data*[51]. While the rapid evolution of technology in the public sector offers significant opportunities, it also presents challenges such as risks of mass surveillance, data misuse, and ethical breaches, prompting the European Commission to advocate for robust regulation.

The adoption of technology in judicial systems has significantly transformed access to justice, administrative efficiency, and procedural transparency. Early initiatives, such as the e-Justice Action Plans, established a foundation for digitalising judicial systems through tools like video conferencing, electronic filings, and digital case management systems, with the aim of reducing costs, streamlining cross-border cooperation, and ensuring efficient judicial processes. The CoE and its CEPEJ have been key advocates for integrating technology into courts, encouraging the use of electronic registers, video conferencing, and even recognizing the potential of AI to enhance judicial efficiency. Building on these efforts, the EU's Digitalisation of Justice communication has highlighted the importance of secure digital channels and cross-border interoperability so that to strengthen access to justice while fostering public trust. By addressing both the public sector and judicial systems, this chapter illustrates how Europe is navigating the challenges and opportunities of digital transformation, forging a distinct path that combines technological innovation with a firm commitment to ethical governance.

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[48] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of The Regions 2030 Digital Compass: the European Way for the Digital Decade COM/2021/118 final.

[49] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'A Digital Single Market Strategy for Europe', COM/2015/0192 final.

[50] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828, OJ L, 2024.

[51] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'A European Strategy for Data', COM/2020/66 final.

1.1.1. The Use of Technologies in the Public Sector

Technology is evolving so rapidly that not only can we hear the Fourth Industrial Revolution[52] being constantly discussed, but the potential and new issues of the Fifth Industrial Revolution[53] are already being debated. Considering that each industrial revolution has brought great social change and created many opportunities, and the fifth one is deemed to be the largest in terms of its scale, rate of spread, and potential for further development, it is of vital importance to regulate the use of technology and to anticipate the legal risks that might accompany this revolution without hindering sustainable technological development.

Digital transformation is one of the EU's key priorities, as it seeks to strengthen its digital sovereignty, set global standards, and make Europe fit for the digital age[54]. In its communication "*2030 Digital Compass: the European Way for the Digital Decade*", the European Commission sets out targets and objectives for the year 2030, including the digitalisation of public services (among the four cardinal points towards a secure, human-centered digital ecosystem), aimed at driving Europe's digital transformation[55]. Back in 2016, the European Commission noted that digital public services reduce the administrative burden on businesses and citizens by making interactions faster, more convenient, and cheaper[56]. In 2015 The EU's *Digital Single Market Strategy* was released to harmonize digitalisation between Member States[57]. Digital transformation being a priority in the EU results in it being a priority of Member States in order to build a harmonized digital environment.

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[52] K. Schwab, *The Fourth Industrial Revolution* (Crown Publishing Group, 2017).

[53] M. S. Noble, et al., 'The Fifth Industrial Revolution: How Harmonious Human–Machine Collaboration is Triggering a Retail and Service [R]evolution' (2022) *Journal of Retailing*, *Volume 98*, issue 2, pp. 199-208.

[54] European Commission, Joint Research Centre, V. Alberti et al., A Europe Fit for the Digital Age – Tracking Europeans' Interest in EC Priorities Using Online Search Data, Publications Office of the European Union, 2022, available at: <https://data.europa.eu/doi/10.2760/478863> accessed 7 June 2024.

[55] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of The Regions 2030 Digital Compass: the European Way for the Digital Decade COM/2021/118 final.

[56] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'EU eGovernment Action Plan 2016-2020 Accelerating the Digital Transformation of Government', COM/2016/0179 final.

[57] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A Digital Single Market Strategy for Europe, at p. 98-109, COM(2015) 192 final .

On 19 October 2017, the European Council stressed that it is ready to do what it takes for Europe to go digital and agreed on several priorities, *inter alia*, on bringing governments and public sectors fully into the digital age[58]. In addition, on 29 May 2018, in the Proposal for a regulation on the European Regional Development Fund and on the Cohesion Fund, it aimed to reach the objective "A smarter Europe by promoting innovative and smart economic transformation" by indicating that public institutions are supported to develop digital services and applications[59]. On 7 November 2018, EU ambassadors agreed on the Council's negotiating position on making it easier to re-use data held by the public sector. The new rules were set to encourage the development and uptake of new data-based services and technologies, including AI, and contribute to making open data more widely available in the EU[60]. Accordingly, on 6 June 2019, the European Parliament and the Council adopted a directive on open data and the reuse of public-sector information[61]. On 7 June 2019, the Council adopted Conclusions on the Future of a highly digitalised Europe beyond 2020: "Boosting digital and economic competitiveness across the Union and digital cohesion", where the crucial role of assisting the public sector to take up AI solutions, and enhancing trust among governments, citizens and companies was highlighted, and the need for effectively digitalised public administrations to ensure a better access to public services for citizens, organisations and businesses across Europe, as well as expectations towards governments to digitally evolve by offering open, efficient and inclusive, borderless, interoperable, personalized, user-friendly, trustworthy, secure, end-to-end digital public services were recognized[62]. In the European Commission's Communication on Shaping

[58] European Council. European Council Meeting (19 October 2017) – Conclusions. EUCO 14/17. Brussels. Available at: <https://www.consilium.europa.eu/media/21620/19-euco-final-conclusions-en.pdf> accessed 7 September 2024.

[59] European Commission. Proposal for a Regulation of the European Parliament and of the Council on the European Regional Development Fund and on the Cohesion Fund COM/2018/372 final – 2018/0197 (COD).

[60] Council of the European Union. Proposal for a Directive of the European Parliament and of the Council on the Re-Use of Public Sector Information (Recast) – Preparation for the Informal Trilogue, 2018/0111(COD), 13418/18, Brussels, 25 October 2018, available at: <https://data.consilium.europa.eu/doc/document/ST-13418-2018-INIT/en/pdf> accessed 7 September 2024.

[61] 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 (Recast) PE/28/2019/REV/1 OJ L 172, 26.6.2019, pp. 56–83.

[62] Conclusions on the Future of a Highly Digitised Europe beyond 2020: 'Boosting Digital and Economic Competitiveness across the Union and Digital Cohesion', 7

Europe's Digital Future, adopted on 9 June 2020, the digital transformation of public administrations throughout Europe was promoted. It was even noted that the success of Europe's digital strategy would be measured by the extent to which digital technologies are effectively employed in delivering public goods to European citizens[63]. In 2020, in the White Paper of AI, the European Commission emphasized the need to develop AI products precisely in public administrations[64]. Thus, the overview of EU policy documents demonstrates a clear and consistent direction: digitalisation and AI are not only encouraged, but even actively positioned as strategic tools for strengthening Europe's competitiveness and sovereignty.

However, certain risks in relation to the rapid development of technology in the public sector were observed as well. For example, in its communication going back as far as 2018, the Commission emphasized that, on the one hand, the EU has to boost its technological and industrial capacity, but, on the other hand, it has to ensure an appropriate ethical and legal framework based on the Union's values[65]. In 2020, in a communication called *A European Strategy for Data*, the Commission stated that competitors such as China and the US are already innovating quickly and projecting their concepts of data access and use across the globe. In the US, the organization of the data space is left to the private sector, with considerable concentration effects. Meanwhile, China runs a combination of government surveillance with a strong control of Big Tech companies over massive amounts of data without sufficient safeguards for individuals. In order to release Europe's potential, it is necessary to find our European way, balancing the flow and wide use of data, while preserving high privacy, security, safety and ethical standards[66]. Also, in the European

June 2019, Brussels. Available at: <https://www.consilium.europa.eu/media/39667/st10102-en19.pdf> accessed 7 September 2024.

[63] European Commission, Directorate-General for Communications Networks, Content and Technology, Shaping Europe's Digital Future, Publications Office, 2020. Available at: <https://data.europa.eu/doi/10.2759/091014> accessed 7 September 2024.

[64] European Commission White Paper on Artificial Intelligence – A European Approach to Excellence and Trust, COM(2020) 65 final. European Commission, Brussels, 2020.

[65] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'Artificial Intelligence for Europe', COM/2018/237 final.

[66] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'A European Strategy for Data', COM/2020/66 final.

Commission's communication "*2030 Digital Compass: the European Way for the Digital Decade*", the importance to set up a comprehensive set of digital principles (for example, the principle of accessible and human-centric digital public services and administration) that will allow to inform users and guide policy makers and digital operators is emphasized[67]. It can be concluded that the European integration of technology, in contrast to, for example, the aforementioned case of China, is, first and foremost, inseparable from the adequate provision of human rights. While we note that the EU approach to technology intervention in the public sector is focused on a balance between technological superiority and trust, the pursuit of increasing research and industrial capacity, and the protection of basic human rights, it is not clear to what extent technology intervention in the traditional ways of public service delivery is considered 'European'.

In October 2020, the European Parliament adopted a Resolution on a Framework of Ethical Aspects of AI, Robotics and Related Technologies that recommends the European Commission to propose a legislative action to harness the opportunities and benefits of AI, but also to ensure protection of ethical principles[68]. The aforementioned Resolution states that the European Parliament considers that technologies which can produce automated decisions, thus replacing decisions taken by public authorities, should be treated with the utmost precaution, notably in the area of justice and law enforcement. Upon evaluating why the European Parliament puts more emphasis on the activities of law enforcement and justice institutions, it can be assumed that the emphasis of these institutions is probably caused by enhancing trust in technology as a critical element of successful technology integration in general. The Resolution also notes that, while the deployment of AI, robotics and related technologies in public authority decision-making brings benefits, it can result in grave misuse, such as mass surveillance, predictive policing and breaches of due process rights. Accordingly, Member States should have recourse to such technologies only if there is thorough evidence of their trustworthiness and if meaningful human intervention and review is possible or systematic in cases where fundamental liberties are at stake. It follows that the European Parliament encourages careful use of the

[67] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of The Regions 2030 Digital Compass: the European Way for the Digital Decade COM/2021/118 final.

[68] European Parliament Resolution of 20 October 2020 with Recommendations to the Commission on a Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies (2020/2012(INL)), OJ C 404, 63–106.

opportunities offered by technology, and always prioritizes basic human freedoms.

In October 2021, the European Commission presented a proposal for the AI Act, where it was stated that: "In light of the speed of technological change and possible challenges, the EU is committed to strive for a balanced approach. It is in the Union's interest to preserve the EU's technological leadership and to ensure that Europeans can benefit from new technologies developed and functioning according to Union values, fundamental rights and principles[69]".

A review of the EU's policy documents and initiatives reveals two main directions of technology integration: firstly, the consistent strengthening of digital capacities in the public sector, particularly in the courts, and secondly, the parallel prioritization of human rights and fundamental values. Unlike in the United States or China, the European model is based on the ambition of finding the right balance between the technological progress and foundational values, ensuring that innovation does not undermine individual freedoms and rights.

This dual emphasis (i.e., fostering technological development while safeguarding human rights) is particularly significant when analyzing the digitalisation of courts. As one of the most sensitive areas of state authority, courts directly shape individuals' rights and obligations and are closely tied to public trust. Their modernization therefore serves as a key indicator of how well Europe's approach to innovation aligns with the principle of access to justice. Accordingly, the next section turns to the legal and regulatory framework paving the way for the use of technology in judicial systems.

1.1.2. The Use of Technologies in Judicial Systems

What concerns the use of technology in judicial systems, the synthesis of technology and justice systems is discussed by the EU and the COE as well as related agencies (CEPEJ). The European approach to technology in judicial systems has developed gradually, through the work of several institutions. Three strands can be distinguished. First, the CoE and the CEPEJ began by recognizing the potential of digital tools and promoting their cautious integration into the court practice. Second, the European Commission framed digitalisation as part of the broader Digital Single Market and rule of law

[69] Proposal for a Regulation of the European Parliament and of the Council Laying down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, COM/2021/206 final.

agenda, by linking the judicial reform to a wider EU policy. Third, the European Parliament and Council pushed for concrete measures, ranging from e-Justice initiatives to the regulation of cross-border evidence and service of documents. Taken together, these initiatives reveal a long-standing concern with balancing efficiency and innovation with fundamental rights.

The use of technology in judicial systems has been on the European agenda for decades. As early as in 1984, the Committee of Ministers of the CoE emphasized that the most modern technical means should be made available to the judicial authorities so as to enable them to give justice in the best possible conditions of efficiency, in particular, by facilitating access to the various sources of law and speeding up the administration of justice[70]. By 2001, the Committee went further, by encouraging judges and legal practitioners to explore the emerging possibilities that the new technologies afford, and to work with technical experts in modernizing the legal processes in ways that would better serve user requirements, promote public confidence, and which would ensure an appropriate balance between the interests of justice on the one hand and cost-effectiveness on the other hand[71]. In the same year, it encouraged making legal information, including text of the law, available in the electronic form, as well as electronic registers in the legal field established in the Internet and network access to national public registers in the legal field, and also interaction of court services with the public by means of new technologies[72]. These early initiatives illustrate that the COE was one of the first European institutions to recognize the potential of technology in judicial systems, by framing it not merely as a tool for efficiency but as a means to strengthen access to justice and public confidence.

The importance of the potential of technology to improve access to justice and efficiency of courts was noted by the Council of the EU back in 2007, when the Justice and Home Affairs Council of the Council of the EU

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[70] Principles of Civil Procedure Designed to Improve the Functioning of Justice: Recommendation no. R (84) 5, Adopted by the Committee of Ministers of the Council of Europe on 28 February 1984 and Explanatory Memorandum. (1984).

[71] Council of Europe: Committee of Ministers, Recommendation Rec(2001)2 of the Committee of Ministers to Member States Concerning the Design and Re-Design of Court Systems and Legal Information Systems in a Cost Effective Manner 28 February 2001, Rec(2001)2, available at: <https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016804f352a> accessed 7 September 2024.

[72] Council of Europe: Committee of Ministers, Recommendation Rec(2001)10 of the Committee of Ministers to Member States on the European Code of Police Ethics, 19 September 2001, Rec(2001)10, available at: <https://www.refworld.org/docid/43f5c7944.html> accessed 7 September 2024.

decided that work should be carried out with a view to developing at a European level the use of IT in the field of justice, particularly by creating a European portal[73]. The Council of the EU in this regard has adopted three Multiannual Strategies and e-Justice Action Plans, which, together, chart the progressive digitalisation of European judicial systems. The first one – *Multiannual e-Justice Action Plan 2009–2013* – aimed at making justice and the legal system more accessible to citizens, and to improve the mutual understanding of practitioners and administrations by providing electronic tools for information and cooperation. It welcomed the initiative to "progressively establish a uniform EU e-Justice portal by the end of 2009 and noted that the use of new technologies would help to rationalise and simplify judicial procedures, whereas the use of an electronic system in this area would reduce procedural deadlines and operating costs, to the benefit of citizens, undertakings, legal practitioners and the administration of justice, resulting in facilitating access to justice[74].

A subsequent e-Justice Action Plan was adopted for the 2014–2018 period, which expanded this agenda by highlighting that new technologies should make it easier to initiate proceedings (in particular, in cross-border situations) by enabling communication by electronic means between courts and parties to proceedings, as well as witnesses, experts and other participants, or by promoting the use of video conferencing, tele-conferencing or other appropriate means of long-distance communication for oral hearings in order to remove the need to travel to court physically so that to take part in judicial proceedings. Furthermore, the *2014–2018 E-Justice Strategy* noted that the dematerialization of legal procedures and the use of electronic means in the communication between all those involved in judicial activities has become an important element in the efficient functioning of the judiciary in the Member States[75].

Finally, the third *e-Justice Action Plan*, together with the Strategy, superseding the previous ones, was adopted for the period of 2019–2023 and

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[73] Multi-Annual European e-Justice Action Plan 2009-2013, OJ C 75, 31.3.2009, pp. 1–12, available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XG0331%2801%29> accessed 7 September 2024.

[74] Multi-Annual European e-Justice Action Plan 2009-2013, OJ C, C/75, 31.03.2009, pp. 1, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52009XG0331(01))> accessed 7 September 2024.

[75] Draft Strategy on European e-Justice 2014-2018, OJ C 376, 21.12.2013, pp. 7–11, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013XG1221(02)> accessed 7 September 2024.

aimed to further improve access to justice by continuing digitalisation in the field of justice. During this four-year period, the following three objectives to focus on were distinguished: 1) improving access to information; 2) e-Communication in the field of justice; and 3) facilitating interconnection and interoperability between the member states' systems[76]. Importantly, it also introduced the principle of 'digital by default', thus committing to ensure that citizens and businesses have the option to interact digitally with authorities and embedding this principle into national and EU legislation[77].

Taken together, these initiatives underscore the Council's long-standing recognition that technology is central to modernizing courts. The position of the Council of the EU is extremely valuable as it detailed ways to digitalise courts throughout the years: it emphasized the perks of using technology: to rationalize and simplify judicial procedures, to reduce procedural delays and operating costs, and to facilitate access to justice; also, it encouraged the early use of videoconferencing, especially in cross-border disputes, emphasized the importance to digitalise justice by distinguishing specific areas to concentrate on. In this sense, e-Justice has become a cornerstone of the EU's Digital Single Market and of its broader ambition to build "a Europe fit for the digital age[78]".

Undoubtedly, the European Commission has been the most active EU institution in shaping the digitalisation of justice. Its involvement began in 2008 with the communication "*Towards a European e-Justice Strategy*", where it was noted that placing IT at the service of judicial systems creates possible solutions by improving their functioning and contributing to a streamlining of procedures and reduction in costs. In addition, it framed 'e-Justice' as a response to the threefold need: enhancing access to justice, improving cooperation between judicial authorities, and increasing the overall effectiveness of justice systems – thereby strengthening the citizens' confidence in the European area of justice[79]. In 2015, the Commission adopted

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[76] 2019-2023 Action Plan European e-Justice (OJ C, C/96, 13.03.2019, p. 9, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019XG0313(02))> accessed 7 September 2024.

[77] 2019-2023 Strategy on e-Justice, 2019/C 96/04, C96/3, 13.3.2019, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019XG0313(01)&rid=7> accessed 11 September 2024.

[78] European Commission, Joint Research Centre, V. Alberti et al., A Europe Fit for the Digital Age – Tracking Europeans' Interest in EC Priorities Using Online Search Data, Publications Office of the European Union, 2022, available at: <https://data.europa.eu/doi/10.2760/478863> accessed 7 June 2024.

[79] Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee – Towards a European e-Justice Strategy SEC(2008)1947 SEC(2008)1944, COM/2008/0329 final, available at:

the communication "*A Digital Single Market Strategy for Europe*", where it was noted that it aims to aims to support an inclusive Digital Single Market in which citizens and businesses would have the necessary skills and would be able to benefit from interlinked and multi-lingual e-services, including e-justice[80]. It can be observed that the work of the European Commission regarding the question of modernization of justice with the help of technology accelerated in 2020. In the *Strategic Foresight Report*, it was recognized that it is extremely important to promote the digital transformation of public administration institutions and justice systems throughout the EU[81]. On December 2, 2020 the European Commission adopted the *Communication on Digitalisation of Justice in the EU*[82]. Its aim at the national level was to help the Member States strengthen the implementation of digital technologies in various national judicial institutions, whereas, at the European level, it aims to further improve cross-border judicial cooperation. In the communication, the Commission stressed that the digital transformation of the justice sector is one of the domains in which Member States are strongly encouraged to focus reforms and investments. In addition, this Communication noted that, in order to reap the full benefits of digital technologies in judicial proceedings, the task ahead is two-fold: at the national level, it aims at further supporting Member States to move ahead their national justice systems towards the digital era, by enhancing the cooperation and digital uptake of the different national judicial authorities, for the full benefit of citizens and business, whereas, at the European level, it aims at further improving cross-border judicial cooperation between the competent authorities. This would concern, in particular, further digitalising public justice services, promoting the use of secure and high-quality distance communication technology (videoconferencing), facilitating the interconnection of national databases and registers, and promoting the use of secure electronic transmission channels between competent authorities.

</https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52008DC0329> accessed 11 September 2024.

[80] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'A Digital Single Market Strategy for Europe', COM/2015/0192 final.

[81] European Commission, 'The 2020 Strategic Foresight Report, Charting the course towards a more resilient Europe', 2020, available at: <https://ec.europa.eu/info/sites/default/files/strategic_foresight_report_2020_1.pdf> accessed 11 September 2024.

[82] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union A Toolbox of Opportunities, COM/2020/710 final, 2020.

Furthermore, the communication highlights that, by improving access to justice, digitalisation will also help to strengthen the rule of law in the EU. The Communication also encourages to make access to justice an integral part of *Europe's Digital Decade*.

By introducing it, Věra Jourová, Vice-President for Values and Transparency, emphasized that: "Justice systems need to keep pace with digital transformation and to respond to the expectations of citizens. As national courts are also EU courts, we strongly support this new approach to digitalisation of justice systems. It will improve access to justice and cooperation in the EU's area of freedom, security and justice, and the functioning of the internal market"[83]. Whereas, Commissioner for Justice, Didier Reynders, stated that "everyone working in the field of justice needs to stand up to the challenges of the 21st century. This includes the whole new world of AI, which we need to explore in full respect of the fundamental rights. The recent COVID-19 crisis has been a strong reminder of the need for a rapid digitalisation of justice"[84].

Subsequent communications reinforced this trajectory. The European Commission's 2020 Communication of on "*Europe's Moment: Repair and Prepare for the Next Generation*" reiterates that the digitalisation of justice systems can improve access to justice and the operation of the business environment[85]. In 2021, the European Commission emphasized that the use of digital technologies has the potential to make judicial systems more efficient by easing the administrative burden, shortening case processing times, making communication more secure and reliable, and partially automating case handling[86]. In the 2022–2025 Action Plan: "*Digitalisation for a Better*

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[83] European Commission – Press release 'Modernising EU Justice Systems: New Package to Speed up Digitalisation of Justice Systems and Boost Training of Justice Professionals', Brussels, 2 December 2020, available at: <https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_20_2246/IP_20_2246_EN.pdf> accessed 11 September 2024.

[84] European Commission – Press release 'Modernising EU Justice Systems: New Package to Speed up Digitalisation of Justice Systems and Boost Training of Justice Professionals', Brussels, 2 December 2020, available at: <https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_20_2246/IP_20_2246_EN.pdf> accessed 11 September 2024.

[85] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. Europe's Moment: Repair and Prepare for the Next Generation COM/2020/456 final.

[86] Proposal for a Regulation of the European Parliament and of the Council on the Digitalisation of Judicial Cooperation and Access to Justice in Cross-Border Civil,

Justice" of the CEPEJ, it is stated that the institution's priority for the next four years is to support states and courts in successfully transitioning towards digitalisation of justice[87]. To conclude, digitalisation of justice systems is a leitmotif in various communications of the Commission. According to it, at present, judicial proceedings, and, in particular, proceedings in cross-border situations, still take place mostly on paper and are based on the traditional transmission channels. This situation does not provide a modern access to justice in an environment that is more and more digitalised, and it is detrimental for citizens and businesses[88], hence, the Commission is actively working to modernize the courts throughout the EU.

To understand how the CEPEJ's stance evolved, it is useful to look at three phases: those of *early recognition* (2006–2008), *consolidation* (2010–2014), and *broader digitalisation* (from 2015 onwards). Since 2004, the CEPEJ has undertaken a regular process for evaluating judicial systems of the CoE Member States. Its reports trace the gradual evolution of technology in courts.

In its early work (2006–2008), the CEPEJ already recognized the transformative potential of IT for judicial systems. The 2006-dated report on European judicial systems identified IT as one of the main instruments for increasing the efficiency of justice, improving communication between courts and legal professionals, and enhancing access to judicial information for the public. It emphasised that court websites could provide practical information such as court opening hours, locations, important decisions, and notifications concerning the execution of court orders. More advanced applications include the use of court portals that enable legal professionals or clients to follow a case, access electronic files, and exchange procedural data. In addition, judges can benefit from the possibility of information technology for retrieving information regarding jurisprudence, drafting emails or preparing judgements by using word processing facilities. The management of a court may use case-

Commercial and Criminal Matters, and Amending Certain Acts in the Field of Judicial Cooperation COM/2021/759 final.

87 2022–2025 CEPEJ Action Plan: '*Digitalisation for a Better Justice*'. Adopted at the 37th CEPEJ plenary meeting, available at: <https://rm.coe.int/cepej-2021-12-en-cepej-action-plan-2022-2025-digitalisation-justice/1680a4cf2c> accessed 11 September 2024.

88 Information retrieved from European Commission webpage, available at: <https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/digitalisation-justice_en> accessed 11 September 2024.

management information systems for the registration of cases and the monitoring of the length of proceedings[89].

The 2008 study "*Use of IT in European Judicial Systems*" confirmed that the rapid development of IT has opened up new opportunities to significantly improve the administration of justice. The availability of web services, the use of electronic filing, the electronic exchange of legal documents, and the possibility to access laws and case-law online were identified as examples that are prompting judicial administrations around the world to rethink their functions and activities. Moreover, it was noticed that even though IT can be used to enhance efficiency, access, timeliness, transparency and accountability, helping the judiciaries to provide adequate services, it can also lead to unexpected negative results[90]. Some interesting observations were made in the 2007-dated study "*Access to Justice in Europe*", mainly that, in the age of new technology, physical access to the courts will probably become less important, as the digitalisation and dematerialization of procedures and the use of videoconferencing will gradually help to make judicial services more accessible. Furthermore, the development of new ways of organizing the justice system (mobile courts, itinerant judges, neighborhood mediators, etc.) and greater adaptability of the procedural framework to user needs may help to enhance the accessibility of justice and the balance between users of the justice system. At the same time, the CEPEJ cautioned that the mobility and 'virtualisation' of judicial services are not a panacea for all the problems connected with access to justice[91]. The 2008 study "*European Judicial Systems*" further stressed the potential of interactive websites, online forms, simplified small claims procedures, and videoconferencing. Videoconferencing, in particular, was seen as beneficial not only for efficiency but also for the protection of vulnerable people (victims) due to the fact that these people do not need to go to the court, but can be interviewed from a remote site by the courts; also, what concerns the cross-border disputes,

[89] CEPEJ Studies, No. 1, European Judicial Systems (edition 2006: data 2004), Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[90] CEPEJ Studies, No. 7, Use of Information and Communication Technologies (ICT) in European Judicial Systems, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[91] CEPEJ Studies No. 9, Access to Justice in Europe, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

parties do not need to travel to the country where the court session is taking place, but can instead be interviewed in their country of residence[92].

During the following decade (2010–2014), the CEPEJ reported a steady expansion of e-justice across Europe. The 2010 study "*European Judicial Systems*" emphasized that the development of e-justice and e-courts is a strong European trend, with reforms in fields such as electronic registers, databases for judicial decisions, electronic court files and electronic signature or case management systems. It observed further innovations, such as video conferencing, the possibility of making use of electronic (registration) forms and electronic exchange of documents between litigants, lawyers and courts, or the recovery procedure for uncontested claims via the Internet. Crucially, the CEPEJ stressed that as long as the judicial debate can always take place and that the rights of defense are safeguarded, the development of e-justice may have a positive effect on the access to justice; it should contribute to a reduction of backlogs and to the shortening of court proceedings – or at least to an improvement of their foreseeability[93]. The 2012 study "*European Judicial Systems*" noted that IT not only enhances efficiency, but also facilitates the user's access to the courts and reinforces the safeguards laid down in Article 6 of ECHR: access to justice, impartiality, independence of the judge, fairness and reasonable duration of proceedings[94]. By 2014, a large number of states reported reforms in fields such as electronic files, electronic databases of jurisprudence, electronic registers, electronic signature or case management systems. ICT systems were increasingly applied to support simplified procedures like payment orders or small claims. The growing reliance on the use of video-conferencing, especially in criminal cases, enhanced a better protection of the persons. Yet, the CEPEJ also warned that it is necessary to develop norms in order to define the range of application of these new video tools and govern their use, since there are no European standards on this issue at this stage[95].

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[92] CEPEJ Studies No. 11, European Judicial Systems (edition 2008: data 2006): Efficiency and Quality of Justice, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[93] CEPEJ Studies No. 12, European Judicial Systems (edition 2010: data 2008): Efficiency and Quality of Justice, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[94] CEPEJ Studies No. 18, European Judicial Systems (edition 2012: data 2010), Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[95] CEPEJ Studies No. 20, European Judicial Systems (edition 2014: data 2012), Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

Between 2015 and 2016, the CEPEJ placed particular emphasis on the ways how modern communication technologies were reshaping court activities. In 2015, the CEPEJ published a study "*Judicial System of the Eastern European Countries*", where it was indicated that equipping judicial staff with modern means of communication, as well as creating electronic case management systems and systems for digital exchange of information and documents between the trial participants and the court improved the access to legal services and strengthened the protection of citizens' rights[96]. The study issued in 2015 "*High Quality Justice for all the Member States of the CoE*" promoted the use of IT in order to strengthen the efficiency of justice, in particular, in order to facilitate access to justice, speed up court proceedings, improve the training of legal professionals, as well as the administration of justice and management of courts[97]. The study completed in 2016 "*European Judicial Systems. Efficiency and Quality of Justice*" observed that the civil, commercial, criminal, administrative and 'other' matters appear broadly to have received similar investment by the Member States. Similarly, no priority seems to have been given to the development of IT tools in an attempt to improve the quality of the public service of justice (internally as regards the operation of the court and externally as regards the relationship with clients and professionals) compared to those improving efficiency. Importantly, the CEPEJ underlined that websites should not only provide general information on rights and procedures, but should also provide court users with information in accordance with their expectations concerning the foreseeability of the procedures[98].

In 2018, the CEPEJ acknowledged that digital transformation affected courts unevenly across Europe. The 2018-dated study "*The Use of the Information Technologies in European Courts*" noted that a computerized system for managing judicial proceedings significantly increases the speed with which cases are being processed, with some States standing out because they already use technologies in a way that promotes efficiency and quality, especially if they have a computerized system for managing judicial

[96] CEPEJ Studies No. 21, Judicial Systems of the Eastern European Countries – Analysis of Data by the European Commission for the Efficiency of Justice (CEPEJ), Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[97] CEPEJ Studies No. 22, High Quality Justice for all the Member States of the Council of Europe, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[98] CEPEJ Studies No. 23, European Judicial Systems (edition 2016: data 2014): Efficiency and Quality of Justice, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

proceedings, or if they offer litigants the possibility of applying for legal aid by electronic means. Yet, the continuing use of paper in some cases likely hinders the full development of technology and limits the savings which may be expected[99]. The companion study "*European Judicial Systems. Efficiency and Quality of Justice*" confirmed that while computerization was widespread, the use of advanced technologies remained highly uneven. It also distinguished three promising areas: 1) the open data of judicial decisions; 2) AI, presented by certain private companies as being able to make 'predictions' of jurisdictional decisions; 3) blockchain applications. The study emphasized that the latest technological developments are not neutral, and the consequence of the treatment of some cases outside the courts by dematerialized channels should not be examined only from the point of view of the optimal case processing[100]. Finally, while acknowledging the increasing importance of AI, the CEPEJ adopted the European ethical Charter on the use of AI in judicial systems and their environment[101]. The Charter encourages responsible AI deployment in justice, while balancing efficiency and quality gains with fundamental rights protection.

The European Parliament also contributed to shaping the e-Justice agenda. In its 2008 Resolution on e-Justice, the Parliament stated that if e-justice is applied properly, information technology can make a significant contribution to improving the accessibility and efficiency of Europe's judicial and legal systems. Also, it was suggested that, with an increasingly integrated internal market and growing mobility within Europe, the challenges inherently faced by a cross-border judicial system, such as language, distance and unfamiliar legal systems, are likely to become more common, and that these problems can, however, be eased to some extent through the appropriate application of IT, thus not only improving access to justice for Europe's citizens but also contributing to the efficiency of the single market[102]. In the Resolution, the Parliament also noted that the use of information technology is encouraged in all areas, including the submission, distribution and service

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[99] CEPEJ Studies No. 24, The Use of the Information Technologies in European Courts, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[100] CEPEJ Studies No. 26, European Judicial Systems (edition 2018: data 2016): Efficiency and Quality of Justice, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej.

[101] The European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and Their Environment, adopted by CEPEJ during its 31st Plenary meeting, Strasbourg, 3–4 December 2018.

[102] European Parliament Resolution of 18 December 2008 with Recommendations to the Commission on e-Justice (2008/2125(INI)). (2010/C 45 E/12).

of documents, the giving of evidence, and the treatment of legal aid applications, and hence it shall be reflected in all future legislative proposals[103]. The Parliament recommended to provide every judicial authority in the EU with a computer, an email address and an Internet connection. Also, it recommended to set-up suitable machinery to ensure that future legislation in the field of civil law is designed in such a way that it can be used in on-line applications, and also noted that video-conferencing is still not being fully exploited, for which, one of the reasons being the lack of the requisite electronic support. Most importantly, it highlighted that any technological progress is welcome in so far as it does not jeopardize the fundamental rights[104].

In 2013, a further Resolution on the *e-Justice Action Plan 2014–2018* reinforced these priorities, calling for the broader use of electronic applications, the electronic provision of documents, the use of video-conferencing, and the interconnection of judicial and administrative registers in order to further reduce the cost of judicial and quasi-judicial proceedings[105].

By 2020, these ideas were reflected in legislation. The perks of videoconferencing were noted by the Parliament and the Council on 2020 when a Regulation on cooperation between the courts of the Member States in the taking of evidence in civil or commercial matters was adopted, where it was indicated that modern communications technology, for example videoconferencing, which is an important means of simplifying and accelerating the taking of evidence, is currently not used to its full potential. A court requested to take evidence may use video- or teleconferencing if asked to do so by the requesting court and its national law allows it, and a court looking to take evidence itself directly in another EU country may use video-conferencing or another form of distance communication to question the person concerned[106]. Another Regulation, adopted on the same day, observed the perks of using technology in the service of documents: in order to ensure the speedy transmission of documents between the Member States for the purposes of service, any appropriate modern communications technology

[103] European Parliament Resolution of 18 December 2008 with Recommendations to the Commission on e-Justice (2008/2125(INI)). (2010/C 45 E/12).

[104] European Parliament Resolution of 18 December 2008 with Recommendations to the Commission on e-Justice (2008/2125(INI)). (2010/C 45 E/12).

[105] European Parliament Resolution of 23 October 2013 on the e-Justice Action Plan 2014–2018 (2013/2852(RSP)).

[106] Regulation (EU) 2020/1783 of the European Parliament and of the Council of 25 November 2020 on Cooperation between the Courts of the Member States in the Taking of Evidence in Civil or Commercial Matters (Taking of Evidence) (Recast) OJ L 405, 2.12.2020, pp. 1–39.

should be used, provided that certain conditions as to the integrity and reliability of the document to be received are met. Therefore, as a rule, all communication and exchange of documents between the agencies and bodies designated by the Member States should be carried out through a secure and reliable decentralized IT system comprising national IT systems that are interconnected and technically interoperable[107]. To conclude, the European Parliament encouraged the modernization of European justice systems by noting its contribution to the improvement of accessibility and efficiency. It distinguished concrete areas where the use of technology should be encouraged (for example, service of documents and evidence handling, as well as videoconferencing) and provided precise recommendations to reach that goal (for instance, to provide computers to judicial authorities).

Taken together, these initiatives show that the digitalisation of justice has been a persistent and multi-institutional project in Europe. While the CoE framed technology early on as a tool not only for efficiency, but also for strengthening trust and access to justice, the EU gradually embedded e-justice into its broader digital policy agenda. The Council and Parliament promoted concrete instruments such as videoconferencing, online registers, and secure electronic transmission, while the Commission positioned digitalisation as a structural reform linked to the Digital Single Market and the Digital Decade. The CEPEJ added an evaluative and critical dimension, while stressing both opportunities and risks. Across these actors, the consensus is clear: technology is no longer peripheral, but integral to the functioning of courts, with its potential framed in terms of access, efficiency, and public confidence. Yet, they also acknowledge that digitalisation is not neutral or self-executing, as its impact depends on careful design, safeguards, and continuous alignment with the fundamental rights. Across EU and CoE instruments, the consensus is consistent: technology is integral to modern courts, but its legitimacy depends on safeguards (human oversight, transparency, data quality) and on preserving judicial independence. These safeguards provide the evaluative lens in Chapter 3, whereas Chapter 2 shall first introduce the relevant technologies and their modes of use in courts.

[107] Regulation (EU) 2020/1784 of the European Parliament and of the Council of 25 November 2020 on the Service in the Member States of Judicial and Extrajudicial Documents in Civil or Commercial Matters (Service of Documents) (Recast), OJ L 405, 2.12.2020, pp. 40–78.

1.1.3. The Lithuanian Regulatory Context on Technologies in Courts

At the national level, these European initiatives have served as important reference points. Lithuania, for example, illustrates both the opportunities and the limitations of EU-driven digitalisation. Lithuania does not have a dedicated or comprehensive legislative framework regulating the use of digital and AI technologies in the judiciary. Instead, the regulation of technological tools in courts is fragmented, consisting of various sector-specific laws, amendments to procedural codes, secondary legislation, and national strategies. This patchwork approach creates an *ad-hoc* regulatory landscape, in which, EU-level instruments and national strategic planning documents serve as guidance where binding legislation is absent.

Key legislation shaping the digital transformation of public institutions includes the Law on the Management of State Information Resources[108] and the Law on the Provision of Information to the Public[109]. The Law on the Provision of Information to the Public regulates the dissemination of information by media and public institutions, ensuring transparency, accuracy, and public access to information, including through digital platforms. The Law on the Management of State Information Resources governs the creation, maintenance, and protection of state information systems, facilitating the secure and efficient digitalisation of public services. While these laws apply broadly across the public sector, they also provide an indirect legal basis for digital tools used in court administration.

Some technological solutions have been formally integrated into court procedures through targeted amendments to procedural legislation. For example, Amendments to the Law on Courts[110], the Law on Administrative Proceedings[111] and the Code of Civil Procedure[112] established that judicial and enforcement data must be handled while using digital technologies, thereby laying the foundation for fully electronic case management. Notably, Article 175^2 of the Code of Civil Procedure[113] and Article 11(5) of the Law on

[108] Law on the Management of State Information Resources, No. XI-1807, 2011.

[109] Law on the Provision of Information to the Public of the Republic of Lithuania, No. I-1418, 1996.

[110] Law on Courts of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 153-7826.

[111] Law on Administrative Proceedings of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 13-308.

[112] Code of Civil Procedure of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 36-1341.

[113] Law Amending and Supplementing the Code of Civil Procedure of the Republic of Lithuania No. XI-1480. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403087> accessed 18 September 2023.

Administrative Proceedings[114] legitimized the use of videoconferencing and other communication technologies during court hearings, including for the questioning of witnesses and site inspections. These amendments were adopted in response to the evolving technological possibilities, thus reflecting a reactive rather than proactive approach to regulating digitalisation in court proceedings.

In response to the COVID-19 pandemic, the Judicial Council adopted a series of recommendations to promote remote hearings and limit in-person contact[115]. These recommendations triggered a widespread shift in the court practice and reinforced the relevance of previously underutilized legal provisions on remote participation. Further efforts to institutionalize remote proceedings followed in 2022, when the Ministry of Justice amended the "*Description of the Procedure for the Use of Video Conferencing and Teleconferencing in Civil and Administrative Cases*"[116] so that to better align with the principle of open court hearings.

Alongside these practical adaptations, Lithuania has introduced strategic frameworks, such as the National Strategy for AI[117] and the Action Plan for

[114] Law Amending and Supplementing the Following Articles of the Law on Administrative Proceedings of the Republic of Lithuania: 11, 12, 21, 22, 23, 24, 34, 37, 39, 50, 51, 53, 57, 61, 62, 64, 66, 68, 70, 71, 72, 73, 74, 75, 77, 78, 82, 83, 85, 87, 93, 101, 105, 106, 107, 110, 118, 119, 121, 129, 130, 131, 132, 134, 135, 137, 138, 142, 150, 155, 156, 157. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403064> accessed 18 September 2023.

[115] Recommendations of 13 March 2020 of the Council of Judges Regarding the Prevention of Coronavirus COVID-19 in the Courts No. 36P-47-(7.1.10) to the Courts of the Republic of Lithuania with Copies to Lithuanian Bar Association and General Prosecutor's Office of the Republic of Lithuania. Available at: <https://www.infolex.lt/ta/587007> accessed 18 September 2023, Recommendations of 13 March 2020 of the Council of Judges Regarding the Execution of Court Functions during the Quarantine Period No. 36P-48-(7.1.10) to the Heads of the Courts of the Republic of Lithuania. Available at: <https://www.infolex.lt/ta/587006> accessed 18 September 2023.

[116] Order of the Minister of Justice of the Republic of Lithuania No. 1R-309 Regarding the Approval of the Description of the Procedure for the Use of Video Conferencing and Teleconferencing Technologies in the Examination of Civil and Administrative Cases of 7 December 2012. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.439221/asr> accessed 18 September 2023.

[117] Ministry of the Economy and Innovation of the Republic of Lithuania. (2019). *Lithuanian Artificial Intelligence Strategy: A Vision of the Future*. Available at: <https://eimin.lrv.lt/uploads/eimin/documents/files/DI_strategija_ENG(1).pdf> accessed 18 September 2023.

the Development of AI Technologies (2023–2026)[118], which set the direction for the national development of AI. More specifically, the "*Vision for the Development of Lithuanian Courts 2023–2033*"[119] serves these objectives. The above-listed documents emphasize technological innovation, including AI-based tools, as a means to improve the efficiency and quality of judicial services.

Taken together, these measures show clear progress in digitalising court administration, particularly the roll-out of electronic case management, videoconferencing, and remote participation. Yet, the framework remains primarily procedural and administrative: there is little explicit legal guidance on the use of AI in judicial decision-making and no detailed safeguards or criteria for its deployment in adjudication have been defined so far. This gap is directly relevant to the aim of this thesis: it underscores the need to assess which technologies enhance access to justice and which of its core elements may be undermined due to the absence of the appropriate safeguards. Consequently, Lithuanian courts rely heavily on European-level soft-law instruments and are expected to align with the forthcoming obligations under the EU AI Act, underscoring the central role of EU standards in guiding a rights-based approach to AI in justice.

1.2. Framing AI Integration in European Courts

AI is deemed to be the key enabling technology[120], and thus it is appropriate to outline the potential to use this specific technology in European courts, which will be discussed further. Considering that the EU has an ambition to

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[118] R. Liubinavičė and G. Žemaitytė (2023). *Lietuvos dirbtinio intelekto technologijų plėtros veiksmų planas 2023–2026 m.* [Lithuanian AI Technology Expansion Action Plan for Years 2023–2026] Ministry of the Economy and Innovation of the Republic of Lithuania. Available at: <https://eimin.lrv.lt/media/viesa/saugykla/2024/3/_zM9neRtKwA.pdf> accessed 18 September 2023.

[119] National Courts Administration of Lithuania (2022). *Lietuvos teismų vystymosi vizija* [Vision of Development of Lithuanian Courts]. Available at: <https://www.teismai.lt/data/public/uploads/2022/12/vizija-pilna-versija.pdf> accessed 24 September 2023.

[120] The 2018-dated report of the '*High Level Group on Industrial Technologies*' recognised AI as a 'key enabling technology' highlighting the transformative role of AI and the necessity for the industry to use AI to maintain its leadership; available at: <http://ec.europa.eu/research/industrial_technologies/pdf/re_finding_industry_02 2018.pdf> accessed 18 September 2023.

become a global leader in developing cutting-edge, trustworthy AI[121], the question naturally arises: *What kind of AI tools are welcome and should be deployed in European countries?* The aim of the following chapter will be to provide answers to these questions.

Given that there is no one universal and all-embracing way to define the AI, this thesis will uncover how this technology is perceived in the legal doctrine. After that, considering that application of this technology in differs dramatically from country to country, based on the legal regulation, allowing (or not) its implementation, the research on the European approach to use AI in courts will be conducted. The results of this research will help to evaluate legal options to use AI to support and to supersede a human judge specifically in the most important function – decision-making process.

1.2.1. Defining Artificial Intelligence (AI)

People worry that computers will get too smart and take over the world, but the real problem is that they're too stupid and they've already taken over the world[122]

Just like there is no single definition of law, there is no one all-encompassing definition to fully express the meaning of AI – both of these concepts are highly dynamic. From a linguistic point of view, in the Oxford Dictionary, it is defined as "the capacity of computers or other machines to exhibit or simulate intelligent behaviour"[123]. A similar definition was provided by the 216th New Jersey Legislature back in 2014: "AI means the use of computers and related equipment to enable a machine to duplicate or mimic the behaviour of human beings"[124]. From these concepts, we notice that AI is sometimes perceived as a certain application of technology in order to obtain the same result that would be obtained if the task was performed by a human. Both of these definitions belong to an anthropocentric and anthropomorphistic

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[121] See, for example, High-Level Expert Group on AI (2019), 'Ethics Guidelines for Trustworthy AI', Technical Report, European Commission, Brussels.

[122] P. Domingos, *The Master Algorithm: How the Quest for the Ultimate Learning Machine will Remake our World* (Penguin Random House 2017), p. 286.

[123] Oxford English Dictionary, available at: <https://www.oed.com/search/dictionary/?scope=Entries&q=artificial%20intelligence> accessed 18 September 2023.

[124] Senate, No. 734, State of New Jersey, 216th Legislature, per-filled for the 2014 session. Available at: <https://www.njleg.state.nj.us/2014/Bills/S1000/734_I1.HTM> accessed 24 September 2023.

approach to defining AI – the view that it strives for human-like intelligence as the golden standard, trying to replicate the way that humans think and reason. The attitude of drawing a parallel between AI and human intelligence is quite popular[125]. We often think and deliberate about intelligence with an anthropocentric conception of our own intelligence in mind as an obvious and unambiguous reference[126], however, these definitions are imprecise. In R. Susskind and D. Susskind's words, it is called the 'AI fallacy' – the mistake of not recognizing that the second wave of AI systems does not mimic or replicate human reasoning, but, instead, takes on the work of professionals by undertaking tasks in ways that are best-suited to their unique capabilities and not ours[127]. There is now a dualism in the definition of AI: narrow (weak) AI analyzes and imitates human intelligence, learning based on the data, for example, face-recognition, chatbots, self-driving cars, smart assistants, etc., whereas strong AI (also called full AI or artificial general intelligence) does not seek to imitate the human-intelligence, and it has the ability to think and apply intelligence to any problem, rather just one specific problem, i.e., it solves holistic problems. This distribution of AI – even though helps to understand the concept better – is of little use when talking about regulating AI.

In order to catch up with such giants in the field of AI as China and the United States, the EU has adopted a number of legislative acts of a recommendatory nature, promoting the faster development of AI – as it perceived as the most promising technology. The principles of operation of AI, specified in the communication of the European Commission "Building Trust in Human-Centric AI"[128] and the recommendations of the Council of the OECD "Recommendation of the Council on AI"[129], could help in forming a unified concept of AI. The aforementioned communication of the European

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[125] See, for example, B. Goertzel, 'Human-Level Artificial General Intelligence and the Possibility of a Technological Singularity: A Reaction to Ray Kurzweil's *The Singularity is near*, and McDermott's Critique of Kurzweil' (2007) *Artificial Intelligence*, *Volume 171*, issue 18, pp. 1161-1173; V. C. Müller, N. Bostrom 'Future Progress in Artificial Intelligence: A Survey of Expert Opinion' in V. C. Müller (Ed.) *Fundamental Issues of Artificial Intelligence* (2016), pp. 555-572.

[126] J. E. H. Korteling et al., 'Human- versus Artificial Intelligence' (2021) *Frontiers in Artificial Intelligence, March 2021, Vol. 4*, pp. 1-13.

[127] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press 2019).

[128] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Building Trust in Human-Centric Artificial Intelligence, COM/2019/168 final.

[129] OECD, Recommendation of the Council on Artificial Intelligence, OECD/LEGAL/0449, 2022.

Commission indicates the following seven key requirements for the trustworthy application of AI: 1) human agency and oversight; 2) technical robustness and safety; 3) privacy and data governance; 4) transparency; 5) diversity, non-discrimination, and fairness; 6) societal and environmental well-being; 7) accountability. Meanwhile, the recommendations of the Council of the OECD present the following principles of responsible management of AI: 1) inclusive growth, sustainable development and well-being; 2) human-centered values and fairness; 3) transparency and explainability; 4) robustness, security, and safety; 5) accountability. It follows that, despite the fact that both of these legal acts are only of a recommendatory nature, it should be emphasized that, in the absence of mandatory legal acts, namely, soft law sources will be applied to ensure the proper use of AI, so the legal use of AI would not be possible without such fundamental principles as respect for human rights and democratic values, user welfare, continuous supervision and control, clarity, security and accountability.

It is noteworthy that, although the principles stated by the OECD and the European Commission differ insignificantly, distinction can still be observed in the definition of the concept of AI, as presented by the two institutions. In the communication of the European Commission "*AI for Europe*", AI is defined as systems that display intelligent behavior by analyzing their environment and taking actions – with some degree of autonomy – to achieve specific goals. The Commission specified that AI-based systems can be purely software-based, acting in the virtual world (for example, voice assistants, image analysis software, search engines, speech and face recognition systems), or AI can be embedded in hardware devices (for example, advanced robots, autonomous cars, drones, or Internet-of-Things applications)[130]. Whereas, the OECD characterizes the AI system as a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments[131]. The results of the use of AI indicated by the OECD (predictions, recommendations), could be considered decisions in a broad sense; therefore, there is no reason to narrow this concept or to distinguish certain groups of decisions, since, presumably, the list of results generated by AI will expand in the future.

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[130] European Commission: Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions Artificial Intelligence for Europe, Brussels, 25. 04. 2018, COM(2018) 237 final.

[131] OECD, Recommendation of the Council on Artificial Intelligence, OECD/LEGAL/0449, 2022.

On 18 December 2018, the *European Commission's High-Level Expert Group on AI* proposed to expand the definition of the European Commission's Communication on AI in order to clarify the dual nature of the concept. The definition was updated to the following version: AI, as a technology, refers to systems designed by humans that, given a complex goal, act in the physical or digital world by perceiving their environment, interpreting the collected structured or unstructured data, reasoning on the knowledge derived from this data, and deciding the best action(s) to take (according to pre-defined parameters) to achieve the given goal. AI systems can also be designed to learn to adapt their behavior by analyzing how the environment has been affected by their previous actions. Whereas, AI as a scientific discipline includes several approaches and techniques, such as machine learning (of which, deep learning and reinforcement learning are specific examples), machine reasoning (which includes planning, scheduling, knowledge representation and reasoning, search, and optimization), and robotics (which includes control, perception, sensors and actuators, as well as the integration of all other techniques into cyber-physical systems)[132]. Even though these explanations elaborate on the initial definition of AI, the definition remains too broad and vague (for example, we may still ask: *What is deemed to be the right amount of autonomy?*).

On 21 April 2021, the European Commission presented a proposal for a regulation laying down harmonized rules on AI (the *AI Act*) – which is deemed to be the world's first initiative to regulate AI by hard law. According to the proposal, the 'AI system' means 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. Accordingly, Annex I oversees the following techniques: 1) Machine learning approaches, including supervized, unsupervized and reinforcement learning, using a wide variety of methods including deep learning; 2) Logic- and knowledge- based approaches, including knowledge representation, inductive (logic) programming, knowledge bases, inference and deductive engines, (symbolic) reasoning and expert systems; 3) Statistical approaches,

[132] High-Level Expert Group on Artificial Intelligence. (2019). *A Definition of AI: Main Capabilities and Scientific Disciplines. European Commission*. Available at: <https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=56341> accessed 18 September 2023.

Bayesian estimation, search and optimization methods[133]. On 6 December 2022, the CoE adopted a general approach on the proposal for the AI Act, where an 'AI system' was defined as a system that is designed to operate with elements of autonomy and that, based on machine and/or human-provided data and inputs, infers how to achieve a given set of objectives while using machine learning and/or logic- and knowledge-based approaches, and produces system-generated outputs such as content (generative AI systems), predictions, recommendations or decisions, influencing the environments with which the AI system interacts[134]. The Council narrowed down the definition to systems developed through machine learning and/or logic- and knowledge-based approaches in order to distinguish AI from simpler software systems and programming approaches.

On 14 June 2023, the European Parliament adopted its negotiating position on the *AI Act*. Interestingly, among other things, the Parliament suggested to amend the definition of AI systems in order to align it with the definition agreed by the OECD in the abovementioned "*Recommendation of the Council on AI*", adopted back in 2019. It was suggested that the 'AI system' should be defined as a machine-based system that has been designed to operate with varying levels of autonomy and that can, for explicit or implicit objectives, generate outputs such as predictions, recommendations, or decisions that influence physical or virtual environments[135]. When considering how to define AI, the abovementioned criticism to the definition of the OECD recommendations with regard to using the term decisions rather than listing all possible decisions should be borne in mind. Also, as already mentioned, AI is a very dynamic technology. It should be noted that all current applications of AI fall under the weak AI, whereas the full potential of AI is yet to be discovered, thus it is likely that the definition of AI will keep changing over time. As correctly pointed out by the CoE, the notion of the AI

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[133] Proposal for a Regulation of the European Parliament and of the Council Laying down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, COM/2021/206 final.

[134] Council of the European Union, Proposal for a Regulation of the European Parliament and of the Council
Laying down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts – General Approach, 14954/22, 25 November 2022.

[135] European Parliament. Compromise Amendments on the Draft Report – Proposal for a Regulation of the European Parliament and of the Council on Harmonised Rules on Artificial Intelligence (Artificial intelligence Act) and Amending Certain Union Legislative Acts (Draft of Compromise Amendments on the Draft Report (COM(2021)0206 – C9 0146/2021 – 2021/0106(COD))), 16 May 2023.

system should be clearly defined in order to ensure legal certainty, while providing the flexibility to accommodate future technological developments[136]. For this reason, the AI definition should be open enough to encompass the wide range of today's AI applications, as well as the ones being invented in the future, but fixed enough so that a calculator does not fall under it.

To conclude, an AI system should be understood as a machine-based system designed to operate with varying levels of autonomy and capable of generating outputs that influence the environment with which it interacts, whether for explicit or implicit objectives.

1.2.2. The European Approach to AI in Courts

AI is a double-edged sword technology, just like nuclear fission, which can either light cities or burn them down[137]

In 2018,the CEPEJ recognized AI as one of the three topics that bore great promise for improving the efficiency and quality of justice. Furthermore, it noted that public decision-makers, however, are beginning to be more and more seduced by the potential offered, which, as they imagine, will be able to respond to long-standing concerns such as the transparency, efficiency and predictability of justice, as well as the homogenization of jurisprudence. These perspectives are, however, to be moderated in view of the mechanical reality of machine learning, which produces behavioral models based on correlations and classifications of lexical groups making up decisions without pretending to model legal reasoning. The risk, therefore, of transforming freedom into destiny on the basis of the fallacious correlations of big data is still to be evaluated scientifically[138].

In addition, in the same year, the European Ethical Charter on the Use of AI in Judicial Systems and their Environment was adopted by the CEPEJ, where, the increasing importance of AI in our modern societies, and the expected benefits when it will be fully used at the service of the efficiency and

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[136] Council of the European Union, Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts – General Approach, 14954/22, 25th November 2022.

[137] J. Barrat, *Our final invention: Artificial intelligence and the end of the human era* (St. Martin's Griffin 2015).

[138] CEPEJ studies No. 26, European judicial systems (edition 2018: data 2016): efficiency and quality of justice, Strasbourg. The full available at the website of the CEPEJ: www.coe.int/cepej.

quality of justice was acknowledged. It was also observed that the use of AI in judicial systems seeks to improve the efficiency and quality of justice, and that it should be encouraged. It must, however, be carried out with responsibly, with due regard for the fundamental rights of individuals. Judicial decision processing by AI, according to their developers, is likely, in civil, commercial and administrative matters, to help improve the predictability of the application of the law and consistency of court decisions, subject to compliance with the following principles: 1) principle of respect for the fundamental rights; 2) principle of non-discrimination; 3) principle of quality and security; 4) principle of transparency, impartiality, and fairness; and 5) principle 'under user control'. In addition, the state of development of machine learning techniques does not allow, as of today, to reach reliable results regarding the 'prediction' of judicial decisions, and application of these techniques in the abovementioned matters is to be considered for the creation of scales or the pre-litigation Resolution of disputes online, when a later appeal to the judge remains possible[139]. In addition, the Charter highlights that, when AI tools are used to resolve a dispute or as a tool to assist in judicial decision-making or to give guidance to the public, it is essential to ensure that these tools do not undermine the guarantees of the right of access to the judge and the right to a fair trial (equality of arms and respect for the adversarial process). Also, these tools should also be used with due respect for the principles of the rule of law and judges' independence in their decision-making process. Interestingly, the CEPEJ noted regarding online dispute resolution that when litigants go onto an online dispute resolution platform, they should be informed in a clear and comprehensible manner whether the processing of their dispute is done in an entirely automated way, or with the involvement of a mediator or an arbitrator; this is considered a possible use, requiring considerable methodological precautions, whereas judge profiling and anticipating court decisions falls under the group of uses to be considered following additional scientific studies.

Notably, AI was not mentioned either in the first, or in the second *e-Justice Action Plan* – it was noted in the *Evaluation Study on the Outcome of the e-Justice Action Plan 2014–2018 and the Way Forward*, aiming to evaluate the performance of the 2014–2018 Action Plan and make recommendations. Five key domains were suggested for the next *e-Justice Action Plan for the 2019–2023 Period*, based on the stakeholders' input, and

[139] The European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment, adopted by CEPEJ during its 31st Plenary meeting, Strasbourg, 3-4 December 2018.

AI was one of them[140]. Amid concerns that Europe is losing ground to the US and China, in October 2017, the European Council asked the European Commission (EC) to develop a European approach to AI[141]. In April 2018, in its Communication "*AI for Europe*", it was noted that the public sector must seize the opportunities that come both from developing innovative AI solutions and applying them to a range of fields, and that the Commission will support investments in projects in key application areas, including justice[142]. Another highly important aspect of the communication is that it was the first to mention the dual approach in terms of AI: "The EU must therefore ensure that AI is developed and applied in an appropriate framework which promotes innovation and respects the Union's values and fundamental rights as well as ethical principles such as accountability and transparency"[143]. Accordingly, in the Council's *2019–2023 Strategy on e-Justice*, AI and blockchain technology were distinguished as technologies that can have a positive impact on e-Justice, for example, by increasing efficiency and trust. Also, it was noted that any future development and deployment of such technologies must take risks and challenges into account, in particular, in relation to data protection and ethics[144].

Furthermore, in the Council's *2019–2023 Action Plan European e-Justice*, it was noted that AI had been identified as one of the major developments in IT in recent years, and that it should be further developed in coming years, and also its implications in the field of e-Justice need to be further defined[145]. In 2020, the Commission adopted the White Paper on AI,

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[140] European Commission, Directorate-General for Justice and Consumers, *Evaluation Study on the Outcome of the e-Justice Action Plan 2014–2018 and the Way Forward – Final Report*, Publications Office, 2018. Available at: <https://data.europa.eu/doi/10.2838/373323> accessed 18 September 2023.

[141] L. Delponte, European Artificial Intelligence (AI) Leadership, the Path for an Integrated Vision. In: *Eurocities, 2018*. Available at: <https://nws.eurocities.eu/MediaShell/media/Europe-an_AI_study.pdf> accessed 18 September 2023.

[142] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions Artificial Intelligence for Europe, COM/2018/237 final.

[143] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions Artificial Intelligence for Europe, COM/2018/237 final.

[144] 2019-2023 Strategy on e-Justice, 2019/C 96/04, C96/3, 13.3.2019, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019XG0313(01)&rid=7> accessed 18 September 2023.

[145] 2019–2023 Action Plan European e-Justice, ST/5140/2019/INIT OJ C 96, 13.3.2019, pp. 9–32.

where the need for a solid European approach, building on the European strategy for AI – addressing the opportunities and challenges of AI and acting in European way to promote the development and deployment of AI based on European values – was noted. Furthermore, it was highlighted that the Commission supports a regulatory and investment-oriented approach with the twin objective of promoting the uptake of AI and of addressing the risks associated with certain uses of this new technology[146].

The White Paper also suggested that, in high-risk applications of AI, they have to be transparent, traceable, and guarantee human oversight. The White Paper also indicated that justice is deemed a high-risk sector[147]. In 2020, the European Commission adopted the communication *Digitalisation of Justice in the EU: A Toolbox of Opportunities*[148], where a comprehensive set of legal, financial and IT instruments to be used by the various actors in the European justice systems according to their needs was presented to ensure that everyone in the European Union would be able to make full use of new or additional digital tools in the justice area. Among other things, it was observed that the use of AI applications in the justice sector could be very beneficial; however, there are also considerable risks associated with their use for automated decision-making and 'predictive policing'/'predictive justice'. The Commission considers that certain uses of AI applications in the justice sector pose particular risks to fundamental rights. Also, the opacity of certain AI applications can be a challenge with regard to the need to justify decisions, the equality of arms concerning parties in judicial proceedings, and other principles. Appropriate safeguards are needed to guarantee the protection of fundamental rights, including equal treatment and data protection, and to ensure the responsible, human-centric development and use of AI tools where their use is – in principle – appropriate[149].

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[146] European Commission White Paper on Artificial Intelligence – A European Approach to Excellence and Trust, COM(2020) 65 final. European Commission, Brussels, 2020.

[147] European Commission White Paper on Artificial Intelligence – A European Approach to Excellence and Trust, COM(2020) 65 final. European Commission, Brussels, 2020.

[148] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union: A Toolbox of Opportunities, COM/2020/710 final, 2020.

[149] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions *Digitalisation of Justice in the European Union: A Toolbox of Opportunities*, COM/2020/710 final, 2020.

It can be observed that European institutions promote the integration of technologies that perform certain episodic actions, facilitate and speed up the judge's work, rather than intend to replace the person completely. This approach is not new; let us remember that, for example, back in 2016, when the General Data Protection Regulation was adopted, it was noted that the data subject shall have the right not to be subject to a decision based solely on automated processing[150].

Firstly, in 2019, the *High-Level Expert Group on AI*, set up by the European Commission, presented *Ethics Guidelines for Trustworthy AI*. According to the guidelines, in order to be deemed trustworthy, seven key requirements should be met: 1) human agency and oversight; 2) technical robustness and safety; 3) privacy and data governance; 4) transparency; 5) diversity, non-discrimination, and fairness; 6) societal and environmental well-being; and 7) accountability. An interesting observation was made with regard to respect for human dignity concerning the use of AI systems: it entails that all people shall be treated with respect due to them as moral subjects, rather than merely as objects to be sifted, sorted, scored, herded, conditioned, or manipulated. AI systems should hence be developed in a manner that respects, serves and protects the physical and mental integrity of humans, their personal and cultural sense of identity, and satisfaction of their essential needs. The requirement of human oversight was detailed by noting that human oversight helps ensure that an AI system does not undermine human autonomy and/or does not cause other adverse effects. Oversight may be achieved through governance mechanisms such as a *Human-In-The-Loop* (HITL), *Human-On-The-Loop* (HOTL), or *Human-In-Command* (HIC) approach. HITL refers to the capability for human intervention in every decision cycle of the system, which, in many cases, is neither possible nor desirable. HOTL refers to the capability for human intervention during the design cycle of the system and monitoring the system's operation. HIC refers to the capability to oversee the overall activity of the AI system (including its broader economic, societal, legal, and ethical impact) and the ability to decide when and how to use the system in any particular situation. This can include the decision not to use an AI system in a particular situation, to establish levels of human discretion during the use of the system, or to ensure the ability to override a

[150] Article 22 of the 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) (Text with EEA relevance) (OJ L 119 04.05.2016), p. 1. Available at: <http://data.europa.eu/eli/reg/2016/679/oj> accessed 11 May 2023.

decision made by a system. All other things being equal, the less oversight a human can exercise over an AI system, the more extensive testing and stricter governance is required[151].

In 2019, the Commission adopted the communication *Building Trust in Human-Centric AI*, where the abovementioned key requirements were established. Also, it was noted that AI systems should support individuals in making better, more informed choices in accordance with their goals. They should act as enablers to a flourishing and equitable society by supporting human agency and fundamental rights, and not decrease, limit or misguide human autonomy. The overall wellbeing of the user should be central to the system's functionality. In addition, human oversight helps ensuring that an AI system does not undermine human autonomy or cause other adverse effects. Depending on the specific AI-based system and its application area, the appropriate degrees of control measures, including the adaptability, accuracy and explainability of AI-based systems, should be ensured[152]. In the White Paper on AI, it was also noted that he appropriate type and degree of human oversight may vary from one case to another, depending in particular on the intended use of the systems and the effects that the use could have for affected citizens and legal entities. Furthermore, it was detailed that human oversight could have the following, non-exhaustive, manifestations: 1) the output of the AI system does not become effective unless it has been previously reviewed and validated by a human; 2) the output of the AI system becomes immediately effective, but human intervention is ensured afterwards; 3) monitoring of the AI system while in operation and the ability to intervene in real time and deactivate is maintained; and 4) in the design phase, by imposing operational constraints on the AI system[153]. To make use of the opportunities offered by AI technologies, while addressing the associated risks, in the follow-up to the White Paper on AI from February 2020, the Commission opened a public consultation and received views from various stakeholders on the use of AI applications in the justice area as a possible high-risk use case, in particular if used as part of decision-making processes with significant effects on the rights of persons. The use of AI tools can support, but must not

[151] High-Level Expert Group on AI (2019), 'Ethics Guidelines for Trustworthy AI', Technical Report, European Commission, Brussels.

[152] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Building Trust in Human-Centric Artificial Intelligence, COM/2019/168 final.

[153] European Commission White Paper on Artificial Intelligence – A European Approach to Excellence and Trust, COM(2020) 65 final. European Commission, Brussels, 2020.

interfere with the decision-making power of judges or judicial independence[154]. In the abovementioned 2020-dated Communication *Digitalisation of Justice in the EU: A Toolbox of Opportunities*, it was noted that the final decision-making must remain a human-driven activity and decision. Only a judge can guarantee genuine respect for the fundamental rights, balance conflicting interests, and reflect the constant changes in society in the analysis of a case. At the same time, it is important that judgments should be delivered by judges who fully understand the AI applications and all information taken into account therein that they might use in their work. The use of AI applications must not prevent any public body from giving explanations for its decisions. It is therefore important that judges and prosecutors are trained on the use of AI applications[155].

Secondly, this idea is supported by the European Parliament's *Resolution on a Framework of Ethical Aspects of AI, Robotics and Related Technologies*[156], adopted in October 2020, which states that technologies that can be used to make automated decisions and thus change the decisions taken by public authorities should be treated with great caution, especially in the areas of justice. It is also noted that the Member States should use such technologies only if there is detailed evidence of their reliability and if a meaningful human review is possible. Accordingly, it can be concluded that the European Parliament encourages careful use of the opportunities offered by technology and gives priority to fundamental human freedoms. In addition, it is supported by the European Council's conclusions dated 8 October 2020 called *Access to Justice – Seizing the Opportunities of Digitalisation*, where it was said that the use of AI tools must not interfere with the decision-making power of judges or judicial independence. A court decision must always be made by a human being and cannot be delegated to an AI tool[157].

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[154] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions *Digitalisation of Justice in the European Union: A Toolbox of Opportunities*, COM/2020/710 final, 2020.

[155] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions *Digitalisation of Justice in the European Union A Toolbox of Opportunities*, COM/2020/710 final, 2020.

[156] European Parliament. Report with Recommendations to the Commission on a Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies, No. A9-0186/2020. Available at: <https://www.europarl.europa.eu/doceo/document/A-9-2020-0186_EN.html> accessed 18 September 2023.

[157] Council of the European Union Conclusions 'Access to Justice – Seizing the Opportunities of Digitalisation' 2020/C 342 I/01 OJ C 342I, 14.10.2020, pp. 1–7.

Thirdly, another document worth noting in this regard was adopted by the Committee of Ministers of the CoE on 17 June, 2021, called *Guidelines of the Committee of Ministers of the CoE on Online Dispute Resolution Mechanisms in Civil and Administrative Court Proceedings*[158]. In the Guidelines, it is stated that the Member States may also build and enhance trust and confidence by explaining to the public that the use of online dispute resolution[159] is not meant to fully replace the existing in-court proceedings, but rather to supplement them and create additional options for access to justice. In addition, online dispute resolution needs to be seen as an ancillary aid to judicial decision making, and to facilitate the judge's work, and not function as a constraint. However, on the other hand, the guidelines note that there can be no single, or simple, answer to the question concerning how the right to review a decision involving an online dispute resolution element should be exercised because it depends on the character and the scope of the online dispute resolution element concerned. Where the online dispute resolution only plays a subordinate role in helping a judge in the proceedings, there is no reason to deviate from the standard rules on appeal applicable to proceedings not involving an online dispute resolution element. However, the question becomes crucial when online dispute resolution instruments take the shape of tools for purely automated decisions. Parties should be allowed to contest purely automated decisions and to request that such review is to be made by a human judge. The guidelines note that the ECtHR does not specify at what level this remedy should be applied, and two models are possible here: it is for the Member State to decide if the review should be made at the same judicial level, or else at a higher appeal level. To conclude, even though these documents are sources of soft law, we can still sense what is the European approach – i.e., that the use of technology to make final decisions, at least at this stage of technological development, is not encouraged.

Finally, in April 2021, the Commission presented its AI package, including: 1) its Communication on fostering a European approach to AI; 2) a review of the Coordinated Plan on AI; 3) its Regulatory framework proposal on AI and relevant Impact assessment. In the proposal for the first-ever legal framework on AI, the levels of risk in AI are categorized into: 1) unacceptable risk; 2) high risk; 3) limited risk; 4) minimal or no risk.

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[158] Council of Europe, and Council of Europe Online Dispute Resolution Mechanisms in Civil and Administrative Court Proceedings: Guidelines and Explanatory Memorandum Council of Europe, 2021.

[159] It should be noted that, within the meaning of the Guidelines, online dispute resolution refers to any online information technology used by a court to resolve or assist in resolving a dispute.

It was proposed to set specific rules for high-risk AI systems – the ones that create a high risk to the health and safety or fundamental rights of natural persons. In line with a risk-based approach, those high-risk AI systems are permitted on the European market subject to compliance with certain mandatory requirements: 1) high quality of the datasets feeding the system to minimize risks and discriminatory outcomes; 2) logging of activity to ensure full traceability of results; 3) detailed documentation providing all information necessary on the system and its purpose for authorities to assess its compliance; 4) clear and adequate information to the user; 5) appropriate human oversight measures to minimize the risk; 6) high level of robustness, security and accuracy and 7) an *ex-ante* conformity assessment.

According to Recital 61 of the *AI Act*, certain AI systems intended for the administration of justice and democratic processes should be classified as high-risk, considering their potentially significant impact on democracy, rule of law, individual freedoms as well as the right to an effective remedy and to a fair trial. In particular, in order to address the risks of potential biases, errors and opacity, it is appropriate to qualify as high-risk AI systems intended to assist judicial authorities in researching and interpreting facts and the law and in applying the law to a concrete set of facts.

However, this classification does not extend to AI systems intended for purely ancillary administrative activities which do not affect the actual administration of justice in individual cases, such as anonymization or pseudonymization of judicial decisions, documents or data, communication between personnel, administrative tasks or allocation of resources[160]. Consequently, Annex III to the *AI Act* entitled "*High-Risk AI Systems Referred to in Article 6(2)*" identifies as high-risk AI systems the ones which are, *inter alia*, intended to assist a judicial authority in researching and interpreting facts and the law and in applying the law to a concrete set of facts[161].

Furthermore, according to the amendments in the *AI Act*, adopted by the European Parliament on 14 June 2023, the use of AI tools can support, but should not replace, the decision-making power of judges or judicial independence, as the final decision-making must remain a human-driven activity and decision. Such qualification should not extend, however, to AI

[160] Proposal for a Regulation of the European Parliament and of the Council Laying down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, COM/2021/206 final.

[161] Annex III of the Proposal for a Regulation of the European Parliament and of the Council Laying down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, COM/2021/206 final.

systems intended for purely ancillary administrative activities that do not affect the actual administration of justice in individual cases, such as anonymization or pseudonymization of judicial decisions, documents or data, communication between personnel, administrative tasks or allocation of resources[162]. Also, on 6 December 2022, the CoE adopted a general approach on the proposal for the AI Act, where it agreed that, among the requirements that should apply to high-risk AI systems as regards the quality of data sets used, that there must be human oversight, as a necessity to mitigate risks for, *inter alia*, fundamental rights.

In addition, it was noted that high-risk AI systems should be designed and developed in such a way that natural persons can oversee their functioning. In particular, where appropriate, such measures should guarantee that the system is subject to in-built operational constraints that cannot be overridden by the system itself and is responsive to the human operator, and that the natural persons to whom human oversight has been assigned have the necessary competence, training and authority to carry out that role[163]. This European approach should be borne in mind when discussing the future of online courts.

[162] Amendments Adopted by the European Parliament on 14 June 2023 on the Proposal for a Regulation of the European Parliament and of the Council on Laying down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD)).

[163] Council of the European Union, Proposal for a Regulation of the European Parliament and of the Council Laying down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts – General Approach, 14954/22, 25 November 2022.

2. FROM ADMINISTRATION TO ADJUDICATION: THE ROLE OF TECHNOLOGIES IN COURTS

The role of a judge is multifaceted. It can incorporate activism, complex interactions with people, dispute settlement, case management, public and specific education activities, social commentary, as well as core adjudicatory functions[164]. Courts, as institutions, must balance administrative efficiency with the fundamental principles of justice, and technology has increasingly reshaped both dimensions.

Judicial technology serves two primary functions: (1) *Digital Court Administration*, which enhances efficiency, accessibility, and transparency, and (2) *Technology in Judicial Decision-Making*, which raises deeper questions about the extent to which AI and other digital tools should support – or even supersede – judicial reasoning. While digital case management, remote hearings, and online services streamline judicial procedures, AI-driven decision-making systems challenge the longstanding principles of fairness, impartiality, and human judicial oversight.

A crucial regulatory distinction emerges in this transformation. The *AI Act*[165] differentiates between AI tools supporting administrative functions, which primarily optimize efficiency, and AI systems influencing judicial decisions, which are classified as high-risk due to their direct impact on fundamental rights and the administration of justice. While AI-driven tools that enhance court operations, such as document anonymization or case tracking, are lightly regulated, AI applications that assist judges in interpreting facts, applying the law, or making legal determinations, are facing heightened scrutiny due to risks related to fairness, transparency, and judicial independence.

This chapter explores these two dimensions – the digitalisation of court administration and the role of technology in adjudication – assessing both the benefits of automation and the limits of technological intervention in judicial discretion. While AI can assist in predicting case outcomes, structuring legal information, or drafting preliminary judgments, its role remains strictly

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[164] T. Sourdin and R. Cornes, 'Do Judges Need to Be Human? The Implications of Technology for Responsive Judging' In: T. Sourdin and A. Zariski (eds.), *The Responsive Judge* (2018), p. 88.

[165] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828, OJ L, 2024.

supportive within the European regulatory framework. The AI Act explicitly identifies AI systems designed to assist in judicial reasoning as high-risk, reinforcing the principle that judicial authority cannot be delegated to machines. Moreover, while AI excels in handling routine, homogeneous cases, such as administrative appeals or simple procedural matters, it struggles with complex adjudication requiring legal interpretation, moral reasoning, and human discretion. Given the cognitive, psychological, and sociological factors influencing judicial decision-making, the distinction between easy cases and hard cases becomes pivotal in assessing the appropriate scope of AI intervention in courts. This chapter examines how AI can enhance judicial processes without undermining the core principles of human oversight, fairness, and public trust in the judiciary.

2.1. Digitalisation of Courts' Administrative Functions

Courts fulfill a pivotal dual role, by balancing administrative responsibilities with the core task of adjudication. Technology's integration into these areas has sparked significant debate about its potential benefits, limitations, and the ethical implications of automation in judicial systems. The integration of technology into the administrative functions of courts has significantly transformed the ways how justice is managed and delivered. By adopting modern tools and systems, courts can improve efficiency, accessibility, and transparency.

Lithuania has achieved significant progress in the digitalisation of public service. In the first-ever *2023 Digital Government Index*[166] by the OECD, Lithuania was ranked 14th among the 38 members of the organisation. The presently mentioned ranking assesses the maturity of the governments to digitally transform in order to be more coherent and human-centered. In addition, in the latest European Commission's *Digital Economy and Society Index* (DESI) report of 2024[167] – which monitors the Member States' digital progress – Lithuania was ranked 7th in terms of how well digital services work for citizens, by evaluating the administrative steps that can be done online for major life events (birth of a child, a new residence, etc.). Lithuania also ranked

[166] OECD, 2023. *OECD Digital Government Index: Results and Key Findings*. OECD Publishing (2024), available at <https://www.oecd.org/en/publications/2023-oecd-digital-government-index_1a89ed5e-en.html> accessed 7 June 2024.

[167] European Commission, *Digital Economy and Society Index* (DESI) 2024 (Publications Office of the European Union, 2024), available at <https://digital-strategy.ec.europa.eu/en/policies/desi> accessed 7 June 2024.

7th for businesses, in terms of assessing public services needed for starting and running a business that are available online. Furthermore, Lithuania was ranked 6th in terms of the transparency of service processes, user-involved service design, and the ability for users to manage their personal data. Notably, Lithuania proudly ranked 2nd best in the EU for the amount of pre-filled data in public service online forms.

According to the latest version of yet another similar EU tool used to evaluate digital performance – the *eGovernment Benchmark 2024*[168] – Lithuania was ranked 7th, with users of public services praising how easy it is to use eID and pre-filled forms to complete tasks. While the *Digital Economy and Society Index* is a broader measure of the overall digital performance and competitiveness of European countries, the *eGovernment Benchmark* specifically focuses on the performance of public services and the level of their effectiveness of providing services digitally. In summary, Lithuania, on te grounds of achieving notable rankings in various international assessments, demonstrates its eagerness and potential to continue successfully transforming and digitalising its public sector.

In terms of AI, Lithuania was ranked 35th out of 193 countries in the *2023 Government AI Readiness Index*[169]. This further highlights that Lithuania's public sector is well-prepared to integrate AI solutions into the provision of public services.

In addition, electronic modes of service provision have been gaining popularity in Lithuania. At the beginning of 2022, 61.5 percent of institutions provided services via the E-Government Gateway, 100 percent – by e-mail, 79.2 percent provided consultations on the website, and 53.8 percent provided information services via social networks[170]. It was also noted that, as of 2023, 72 percent of Lithuania's population (all persons aged 16–74) actively engage with public digital services[171]. It is reasonable to expect that technological

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[168] European Commission, *eGovernment Benchmark Report 2024* (Publications Office of the European Union 2024), available at <https://digital-strategy.ec.europa.eu/en/library/digital-decade-2024-egovernment-benchmark>, accessed 7 June 2024.

[169] Oxford Insights, *Government AI Readiness Index 2023*, available at: <https://oxfordinsights.com/ai-readiness/ai-readiness-index/> accessed 7 June 2024.

[170] Information retrieved from Official Statistics Portal webpage, available at <https://osp.stat.gov.lt/en/skaitmenine-ekonomika-ir-visuomene-lietuvoje-2022/skaitmenine-aplinka/e-valdzios-paslaugos> accessed 7 June 2024.

[171] Information retrieved from Official Statistics Portal webpage, available at <https://osp.stat.gov.lt/statistiniu-rodikliu-analize?hash=1aa714a3-0d52-40f0-aa8d-265e3ad064a7#/> accessed 7 June 2024.

advancements in Lithuania's public sector will continue to expand, given the presence of key success factors: a robust technological foundation, the proven effectiveness of the already existing technologies, and, most importantly, user trust.

Courts are, without a doubt, one of the most successful examples of digitalisation in the Lithuanian public sector. Implementation of information technology in courts increases the effectiveness of delivering justice, as well as contributes to a better access to justice. The strengthening of justice systems by digitalisation of the Member States contributes to the flourish of the rule of law at the European level. The use of IT can strengthen the Member States' justice systems and make them more accessible, efficient, resilient and ready to face current and future challenges. The COVID-19 pandemic has highlighted a number of challenges affecting the functioning of the judiciary and showed the need for the national justice systems to further improve their digitalisation[172]. While the level of the use of IT in various countries differs dramatically, there were a few bold initiatives in this regard in Lithuania that resulted in courts in Lithuania being sufficiently digitalised.

Lithuania has been a digital frontrunner since the 1990s[173]. The first major step in the implementation of technology in Lithuanian courts was the set-up of the case handling portal *LITEKO* in 2004. Whereas, in 2013, amendments in the Law on Courts came into force, stating that electronic data related to court proceedings are processed, recorded and stored in courts by using information and electronic communication technologies[174]. This initiated the digitalisation of paper files in the courts of Lithuania. As of

[172] European Commission. EU Justice Scoreboard: Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, COM(2023) 309. Available at: <https://commission.europa.eu/system/files/2023-06/Justice%20Scoreboard%202023_0.pdf> accessed 7 June 2024.

[173] Basic technologies were already being implemented as early as in 1994–1996, and, as the computerization of the courts continued, the position of an informatics consultant was established, and one computer was purchased for each court, whereas, in 1994 a special application program *BYLOS*, intended for automating the work of court clerks, registering correspondence received by courts, partially automating the calculation of statistics by certain sections and the generation of meeting schedules, was created, etc. See more: Nekrošius, V. et al., 'Elektronizavimo priemonių naudojimas spartinant Lietuvos civilinį procesą' [Use of Means of Digitalisation when Speeding up the Lithuanian Civil Process], (2015) *Teisė 93*, pp. 29-45.

[174] Law Amending Articles 36, 37, 93, 94, 120 of the Law on Courts of the Republic of Lithuania and Supplementing the Law with Article 37-1, *Valstybės žinios*, 2011, No. 85-4128. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403061> accessed 7 June 2024.

January 1, 2014 paper minutes of hearings were abandoned in civil cases, whereas, in administrative cases, audio recordings were made even earlier[175]. Accordingly, audio records substituted the use of paper records in both civil and administrative cases. Another victory of technology implementation in courts was the amendments to the Code of Civil Procedure and to the Law on Administrative Proceedings, adopted in 2013, which legitimized the use of technologies in questioning witnesses, experts, persons involved in the proceedings and other parties to the proceedings, as well as during site inspections and collection of evidence, and also regarding the use of information and electronic communication technologies in court hearings[176].

In general, Lithuanian courts are deemed to be fairly digitalised. For example, according to the *2023 Justice Scoreboard*, in terms of the availability of online information about the judicial system for the general public, Lithuania scored maximum points, meaning that, *inter alia*, courts' websites are friendly to non-native speakers, have a clearly visible and understandable information about compensation for victims, court fees, legal aid, etc. In addition, Lithuania scored maximum points for the availability of electronic communication tools between courts and bailiffs/judicial officers, notaries, detention facilities, lawyers for proceedings and courts for proceedings. Also, it was noted that courts in Lithuania are using distance communication technology, an electronic case management system, electronic case allocation, and also, staff and judges can securely work remotely. It should also be noted that Lithuania scored maximum points in terms of procedural rules allowing the use of digital technology in courts in both civil/commercial, and administrative cases, by virtue of having in place procedural rules for the possibility of language interpretation, hearing experts, parties, witnesses while using distance communication technology, as well as admissibility of evidence in a digital format only, and an ability to conduct the oral part of the

[175] Information retrieved from the *Lietuvos teismai* [Lithuanian Courts] webpage, available at: <https://www.teismai.lt/lt/naujienos/teismu-sistemos-naujienos/teismu-posedziu-garso-irasai-skaidrumui-ir-autentiskumui-uztikrinti/322> accessed 7 June 2024.

[176] Civil Procedure Code of the Republic of Lithuania, *Valstybės žinios*, 2002, No. 36-1340. Available at: lrs.lt/portal/legalAct/lt/TAD/TAIS.162435/zUYKRkdNGe?jfwid=f3z2ybkxt.

[176] Law Amending and Supplementing Articles 11, 12, 21, 22, 23, 24, 34, 37, 39, 50, 51, 53, 57, 61, 62, 64, 66, 68, 70, 71, 72, 73, 74, 75, 77, 78, 82, 83, 85, 87, 93, 101, 105, 106, 107, 110, 118, 119, 121, 129, 130, 131, 132, 134, 135, 137, 138, 142, 150, 155, 156, 157 of the Law on Administrative Proceedings of the Republic of Lithuania, *Valstybės žinios*, 2011, No. 85-4131. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403064> accessed 7 June 2024.

procedure entirely via distance communication technology[177]. To conclude, in the European context, Lithuanian courts are among the most digitalised ones. This is the result of multiple information and electronic communication technology developments, as well as related regulations. It should also be noted that, according to the Special Eurobarometer "*The Digital Decade*", at the national level, 80 percent of the respondents from Lithuania believe that digital technologies will be important for accessing public services online[178]. This means that system users also perceive the potential of technology to improve the justice systems of Lithuania.

Accordingly, several of the most important initiatives in Lithuania aimed at introducing and promoting the digitalisation of court proceedings (both civil and administrative) — such as the Lithuanian courts' information system LITEKO, the electronic services portal, and remote hearings — will be analysed further. A separate focus will be placed on asynchronous court processes, which, although not currently implemented in Lithuania, could be considered an effective means to enhance the administrative functions of courts.

2.1.1. National Court Information Systems

The foundation for Lithuania's judicial information system was laid in 1994 with the creation of *BYLOS*, a case registration program implemented in all first-instance courts. This system allowed courts to register civil and criminal cases and track individuals on trial. The data was forwarded weekly to the Ministry of Justice via email, thus marking the beginning of automated court statistics collection.

However, *BYLOS* faced severe limitations due to insufficient funding for maintenance and further development, a lack of organizational measures to ensure accurate and timely data entry, and continued reliance on manual record-keeping. As a result, the statistics generated were often unreliable, and courts

[177] European Commission. EU Justice Scoreboard: Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, COM(2023) 309. Available at: <https://commission.europa.eu/system/files/2023-06/Justice%20Scoreboard%202023_0.pdf> accessed 7 June 2024.

[178] European Commission. The Digital Decade, Special Eurobarometer 532, 978-92-68-04219-9, available at: <https://europa.eu/eurobarometer/api/deliverable/download/file?deliverableId=88015> accessed 7 June 2024.

ultimately reverted to recording case information on paper[179]. Despite these shortcomings, *BYLOS* laid the groundwork for the development of *LITEKO*.

The financial foundation for the creation of a unified judicial information system in Lithuania was sourced from the EU's financing through the *Phare Twin Project Strengthening the Capacity of the Lithuanian Courts*[180]. As Lithuania prepared to join the EU, it was subject to the *Phare* initiative, a preparatory measure aimed at helping Central and Eastern European countries reintegrate into the European development mainstream. This initiative provided grant financing to support economic transformation and strengthen democracy, thereby ensuring that the candidate countries were ready to assume the obligations of EU membership.

In 2004, as part of this project, local computer networks were established in all Lithuanian courts. Servers and routers were installed in each court, with a central server positioned at the system's core, connecting all courts into a secure, closed departmental network[181]. This created the infrastructure for a unified court network. At the same time, application programs were developed to register cases, process-related information, and to automate court operations.

By 2004–2005, the unified Lithuanian court system was already put into operation, thus marking a significant milestone in the application of information technology in both the judiciary and the broader public sector. Similar systems were introduced in other countries around the same time. In 2006, Latvia implemented its *Court Information System* for specific case types, while, since 2004, Norway has used the *LOVISA* electronic case processing system as an internal tool without external access[182].

LITEKO was designed not only as a technical upgrade but also as a means to enhance court efficiency and transparency. According to the provisions of the information system of Lithuanian courts, adopted in 2006, *LITEKO* is a system for the registration, storage, management, search, collection, processing, and

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[179] S. Jacinevičienė-Baltaduonė, 'Kur saugomi milijonai teismo bylų?' [Where are the Millions of Court Cases Being Stored], (2015), *Teismai.lt*, *No. 4*, p. 20.

[180] European Commission (1995), PHARE Programme and Contract Information 1995 Lithuania. Available at: <http://aei.pitt.edu/100039/1/1995%2DLITHUANIA.pdf> accessed 7 June 2024.

[181] V. Nekrošius, et al., 'Elektronizavimo priemonių naudojimas spartinant Lietuvos civilinį procesą' [Use of Means of Digitalisation when Speeding up the Lithuanian Civil Process], (2015), *Teisė 93*, pp. 29-45 (p. 36).

[182] F. Waage and H. M. Motzfeldt, *Digitalisation at the Courts* (Nordisk Ministerraad. TemaNord Vol. 2022 No. 518).

submission of documents and data required for court activities[183]. The following core modules were implemented during its initial development phase, while additional functionalities were planned to further enhance the judicial efficiency, as outlined in the "*Implementation Phases of LITEKO: Initial Functionalities vs. Planned Enhancements*" table presented below.

Table 1. Implementation Phases of *LITEKO*: Initial Functionalities vs. Planned Enhancements[184]

Modules Implemented During Initial Development	**Planned Modules for Later Implementation**
Case registration and accounting	Automatic generation of court hearing schedules
Exchange of case-related information between courts	Monitoring of procedural deadlines
Search for similar cases and information in the *LITEKO* databases	Automatic distribution of cases to judges
Court document templates	Automatic calculation of judges' workloads
Generating statistical reports	Preparation and registration of documents sent and received by courts (electronic management systems of court documents)
Public announcement of court procedural decisions on the Internet	Monitoring and control of the employment of process participants
	Information searches in external registers and databases

LITEKO's development progressed beyond its initial implementation, with additional functionalities introduced in phases to enhance judicial efficiency. In 2005, a module for automatic timetable generation was promptly installed. Meanwhile, the development of modules for workload calculation and case distribution was underway but only finalized later, following amendments to the Law on Courts, which mandated computerized case allocation since September 1, 2008[185].

[183] Provisions of the Information System of Lithuanian Courts. Available at: <http://www.teismai.lt/dokumentai/tarybos_nuta-rimai/20060211-435.doc> accessed 7 June 2024.

[184] Provisions of the Information System of Lithuanian Courts. Available at: <http://www.teismai.lt/dokumentai/tarybos_nuta-rimai/20060211-435.doc> accessed 7 June 2024.

[185] Law Amending Articles 33, 34, 36, 38, 39, 42, 43, 47, 51, 55^1, 57, 61, 63, 64, 69^1, 81, the Title of Chapter IX, Replacing and Amending Articles 83, 84, 85, 86, 90, 98, 101, 103, the Title of the Second Section of Chapter XII, Articles 106, 107,108,

In 2006, the Judiciary Council approved a development plan for six additional modules[186], including automation of court orders, electronic document exchange, secure court communication, electronic fee accounting, uniform case numbering, and digital workspaces for judges and staff. The plan also envisioned integrating audio and video communication between *LITEKO* users, utilizing standard workplace equipment such as monitors, cameras, microphones, and speakers. To support this, the secure electronic communication module was expected to include features for recording and storing these communication sessions on a computer or another data medium.

Among these, the unified case numbering module was implemented first, followed by the successful deployment of automated hearing scheduling, case distribution, workload calculation, process participant control, and court order automation. These enhancements significantly improved the court efficiency and digital case management, thereby reinforcing *LITEKO*'s role as a cornerstone of judicial modernization.

By 2007, Lithuania's advancements in judicial digitalisation had gained international recognition. The CEPEJ expert Marco Velicogna highlighted Lithuania as one of the leading judiciaries in Central and Eastern Europe in terms of IT infrastructure, availability of electronic resources, and the integration of case management systems[187].

Since 2013, Lithuania has progressively modernized *LITEKO* to facilitate electronic case management. This process began with the launch of the *LITEKO Public Electronic Services Subsystem* (Lithuanian Courts Electronic Services Portal), which enabled courts to process cases electronically, use digital signatures, and create and review ADOC-format documents[188].

119, 120, 122, 124, 127, 128, 129, Recognizing Articles 89, 109, 110, 111, 112, 125 as Invalid and Supplementing the Law with Articles 53^1, 53^2 and the Third Section of Chapter IX of the Law on Courts of the Republic of Lithuania, *Valstybės žinios*, 2008, No. 81-3186, available at: <https://www.infolex.lt/ta/15559?ref=1> accessed 7 June 2024.

186 The Resolution of the Council of Judges No. 13P-46 'Regarding the Lithuanian Courts Information System (LITEKO) Development Plan' of 10 May 2006. Available at: <https://www.infolex.lt/teise/Default.aspx?id=7&item=doc&AktoId=133358> accessed 7 June 2024.

187 CEPEJ Studies No. 7, Use of Information and Communication Technologies (ICT) In European Judicial systems, Strasbourg. The full version is available at the website of CEPEJ: www.coe.int/cepej, pp. 14.

188 V. Nekrošius, et al., 'Elektronizavimo priemonių naudojimas spartinant Lietuvos civilinį procesą' [Use of Means of Digitalisation when Speeding up the Lithuanian Civil Process], (2015) *Teisė 93*, pp. 29-45.

In the same year, the Judicial Council mandated the exclusive electronic processing of certain cases, thus marking a gradual transition toward full digitalisation. The shift to electronic-only proceedings was introduced in phases, as made evident in the table below.

Table 2. Mandatory Electronic Case Processing Timeline in Lithuanian Courts[189]

Year	Case Type	Digital Processing Requirement
2013	Civil cases regarding court orders in district courts	Required if initiated electronically
2013	Civil cases in district courts (first instance) and administrative cases in administrative courts (first instance)	Required if initiated on or after July 1, 2013 using information and electronic communication technologies
2014	All civil cases in district courts	Required if initiated on or after January 1, 2014 using information and electronic communication technologies
2015	Administrative law violations and misdemeanors (district courts)	Required if initiated on or after July 1, 2015 using information and electronic communication technologies

Lithuania gradually transitioned to processing electronically initiated cases exclusively in an electronic form. Amendments to the *Law on Courts*[190], the *Law on Administrative Proceedings*[191], and the *Code of Civil Procedure*[192] established that electronic data related to judicial and enforcement proceedings must be managed, registered, and stored by using information technologies. These amendments also introduced the right of the parties concerned to remotely access electronic case files and submit procedural documents electronically. Additionally, the use of electronic procedural documents and digital signatures in court proceedings was authorized. Furthermore, the laws mandated that advocates, assistant advocates, bailiffs,

[189] Resolution of the Council of Judges No. 13P-145-(7.1.2) 'Regarding the Processing of Cases and Information Related to the Court Process only in Electronic Form' of 8 November 2013. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.460204/asr> accessed 7 June 2024.

[190] Law on Courts of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 153-7826.

[191] Law on Administrative Proceedings of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 13-308.

[192] Code of Civil Procedure of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 36-1341.

assistant bailiffs, notaries, state and municipal enterprises, institutions and organizations, insurance undertakings, court-appointed experts, and insolvency administrators must submit procedural documents exclusively by electronic means.

In 2016, Lithuania adopted a plan to modernize its judicial information system, thereby initiating the development of *LITEKO II* in cooperation with the State Enterprise *Registry Center*[193]. The modernization plan was divided into three phases: from 2016 to 2017, the focus was on developing the case administration and accounting subsystem, the administration subsystem, and the audit and security subsystem. The second phase, planned for 2017 to 2019, aimed to introduce document management and accounting, a public court information subsystem, a search subsystem, and a judicial statistics subsystem. The final phase, scheduled for 2019 to 2020, involved the development of data exchange and integration capabilities, as well as a subsystem for public electronic services[194].

Currently, *LITEKO* operates through several key modules, with each of these designed to streamline judicial processes and enhance efficiency. The table below provides an overview of these modules and their respective functions.

Table 3. Current Functional Modules of LITEKO[195]

Module	**Function**
Case registration and accounting	Tracks and manages case records
Public announcement of court decisions	Provides public access to judicial rulings
Court statistics	Generates and publishes statistical reports
Case information exchange	Facilitates inter-court case data transfer

[193] Overview of Court Activities of 2016. Available at: <https://www.teismai.lt/data/public/uploads/2017/03/teismu_veiklos_apzvalga_2016> accessed 7 June 2024.

[194] Order of the Director of the National Court Administration regarding the Modernization of the Information System of the Lithuanian Courts and the Amendment of the Order of the Director of the National Court Administration No. 6P-112-(1.1) 'Regarding the Approval of the Provisions of the Information System of the Lithuanian Courts and the Provisions of Data Security of the Information System of the Lithuanian Courts' of 28 November 2011. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAP/eb40693218d011e6aa14e8b63147ee94> accessed 7 June 2024.

[195] Information retrieved from the *Lietuvos teismai* [Lithuanian Courts] webpage, available at: <https://www.teismai.lt/lt/nacionaline-teismu-administracija/veiklos-sritys/134> accessed 7 June 2024.

Module	Function
Search for similar cases	Allows retrieval of related case law
Court document templates	Standardizes judicial document creation
Court scheduling	Automates hearing timetables
Allocation of cases to judges	Ensures fair and automated case distribution

Beyond these modules, *LITEKO* introduced key functionalities that further digitalised judicial proceedings. One significant addition was the storage of audio recordings of court proceedings, which improved record-keeping and enhanced the procedural transparency. The system also enabled electronic judicial mediation management, allowing courts to handle mediation cases digitally. Furthermore, enforcement procedures became fully electronic, enabling parties to submit applications to bailiffs and receive enforceable instruments digitally. Additionally, *LITEKO* was integrated with the bailiffs' system, ensuring the automatic and proportional distribution of enforcement documents while preventing fragmentation in enforcement actions against the same debtor.

As part of Lithuania's *2023–2025 Strategic Action Plan*, the final stages of *LITEKO* modernization are being implemented through the state investment project "*Ensuring the Speed and Security of the Court Information System and Modernization of Electronic Court Services*"[196]. This initiative aims to fully automate and integrate judicial processes while enhancing *LITEKO*'s public electronic services subsystem. Although originally scheduled for completion by December 31, 2023[197], the modernization process has experienced delays. According to the latest update, integration with other information systems is being finalized, and final preparations are underway, with the launch of the modernized *LITEKO* now planned for November 2025[198].

[196] 2023–2025 Strategic Action Plan of National Courts Administration of Lithuania. Available at: <https://www.teismai.lt/data/public/uploads/2022/12/2023-2025-m.-nta-strateginis-veiklos-planas.docx> accessed 7 June 2024.

[197] 2023–2025 Strategic Action Plan of National Courts Administration of Lithuania. Available at: <https://www.teismai.lt/data/public/uploads/2022/12/2023-2025-m.-nta-strateginis-veiklos-planas.docx> accessed 7 June 2024.

[198] Nacionalinė teismų administracija [National Administration of Courts]. Official response to author's inquiry, received on 28 April 2025.

Additionally, the EU-funded project "*Increasing the Efficiency of Judicial Activities*"[199] has contributed to judicial efficiency by introducing advanced court resource management and case allocation models, modernizing *LITEKO*, and integrating new digital tools, including the virtual legal assistant *JUSTIS*.

The modern *LITEKO* system has transformed Lithuania's judiciary, by streamlining case management, electronic document handling, and enforcement procedures. It enables courts to register and track case progress, manage judicial statistics, and provide public access to court rulings. Through the website e.teismas.lt, *LITEKO* functions as both an internal judicial tool and a public legal database, ensuring accessibility to final judgments and procedural schedules. As a comprehensive digital solution, it enhances judicial efficiency, transparency, and public trust across all types of litigation in Lithuania.

Accordingly, while *LITEKO* has transformed Lithuania's judiciary by streamlining case management, digitalising court services, and enhancing transparency, its reliance on technological infrastructures also raises questions about inclusivity and reliability. Unequal levels of digital literacy, inconsistent practices in providing access to hearings, and risks related to cybersecurity suggest that efficiency gains may come at a cost of procedural equality. A critical examination of these challenges is therefore essential, and will be undertaken in Part 3 of this dissertation, in order to assess whether technological innovation in courts truly enhances access to justice for all, or whether it risks creating new forms of exclusion and undermining the fundamental guarantees of fairness.

2.1.2. E-Services Portals for Court Users

The modernization of the civil and administrative process was not limited to the creation of the *LITEKO* system, which allows to search for similar cases and information in databases, use court document templates, generate statistical reports creation, etc. The digitalisation of Lithuanian courts took a big step forward in 2013, when the *LITEKO* subsystem e.teismas.lt started functioning. In the e-services portal, individuals and businesses were able to submit procedural documents by themselves by using standard templates, it is also not necessary to send the attachments separately by mail as it is enough to scan them and upload them to the electronic system. In addition, in the

[199] Information retrieved from the *Lietuvos teismai* [Lithuanian Courts] webpage, available at: <https://www.teismai.lt/lt/nacionaline-teismu-administracija/projektai/igyvendinti-projektai/149> accessed 7 June 2024.

aforementioned portal, the participants in the process were not only able to submit documents to the court, but they could also get acquainted with all the case materials, records of court hearings, and monitor the progress of the case. Portal users who had legal interests in the case were able to receive the information on all court proceedings via their accounts, and the information was sent by email or short messages by their GSM operator[200].

In 2013, important amendments came into effect, which made it possible for the *LITEKO* subsystem *e.teismas.lt* to be introduced. In the Law on Courts[201], the Law on Administrative Proceedings[202], and the Code of Civil Procedure[203] it was indicated that the electronic data related to judicial and enforcement proceedings must be managed, registered, and stored by using information technologies. Also, the right of the parties to proceedings to get remote access to electronic case files and the right to submit procedural documents to courts electronically, via digital communication means, was established, and the use of electronic procedural documents and electronic signatures in the procedural activities of courts were authorized. Since the 1st of July, 2015, the same system has been used in administrative offense cases, and, since the 1st of January 2020, also, the procedures in some criminal cases (judicial order in criminal cases) have been managed electronically as well. The electronic service portal is a cost-saving method of case-handling. The economic benefit and the principle of sustainability are ensured when 'paper' cases and postal services are replaced by digital solutions. In addition, it saves costs of the preparation of the document, as well as postage and stamp-duty costs. The portal is presented as a cost- and time-saving mechanism, enabling faster transmission of documents to courts and reducing the workload of the court staff, while also making court services more accessible to users.

In 2014, during the implementation of the project "*Electronic Services in the Administration of Justice*" funded by the EU, the e.teismas.lt portal was improved with a court information system and court electronic services adapting to work with the euro (taking into account the fact that Lithuania, as

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[200] Overview of the Activities of the Supreme Administrative Court of Lithuania 2013. Available at: <https://www.lvat.lt/data/public/uploads/2018/01/lvat_2013_met_veiklos_apzv-1.pdf> accessed 7 June 2024.

[201] Law on Courts of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 153-7826.

[202] Law on Administrative Proceedings of the Republic of Lithuania, *Valstybės žinios*, 2012. No. 13-308.

[203] Code of Civil Procedure of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 36-1341.

an EU Member State, joined the eurozone by adopting the euro on 1 January 2015), developing the integration of the court information system with the Register of Legal Acts, carrying out the transfer of the judicial mediation to the electronic space, and improving the account administration of legal entities[204]. Interestingly, based on the *2014 Court Activity Report*, from the date of the portal launch until the end of 2014, almost 18 thousand users registered to the portal. In addition, in 2014, Lithuanian courts examined a total of 73,807 cases handled solely in an electronic form. Civil cases made up the largest part of electronic files in 2014: approximately one in three civil cases to be heard in courts of general competence and one in ten cases to be heard in administrative courts was electronic[205]. It can be observed that the convenience of the portal was appreciated, and both civil and administrative processes became more accessible to the public. The participants in the process were quite willing to use the provided opportunity to open an electronic rather than a 'paper' case.

Accordingly, certain amendments were made in the *Law on Courts*[206], the *Law on Administrative Proceedings*[207] and the *Code of Civil Procedure*[208]. First of all, the *Law on Courts* was supplemented with Article 37^1 called "*The Use of Electronic Files, Information and Electronic Communication Technologies in Courts*", where it was indicated that electronic data related to court proceedings shall be processed, recorded and stored in courts by using information and electronic communication technologies. Also, it was established that the participants in the process have the right to familiarize with the electronic case and receive copies of the documents contained in it (i.e., conditions must be created for the participants of the process to get familiarized with the electronic files and receive their copies remotely). Also, by exercising the right to submit all procedural documents and information related to the court process to the courts in an electronic form, by using electronic means of communication, the courts can notify the process participants about procedural actions or procedural decisions with the use of

[204] Overview of Judicial Activities 2014. Available at: <https://www.teismai.lt/data/public/uploads/2015/03/d2_nta_metine_ataskaita.pdf> accessed 7 June 2024.

[205] Overview of Court Activities of 2014. Available at: <https://www.teismai.lt/data/public/uploads/2017/05/2014_teismu_veiklos_apzvalga_.pdf> accessed 7 June 2024.

[206] Law on Courts of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 153-7826.

[207] Law on Administrative Proceedings of the Republic of Lithuania, *Valstybės žinios*, 2012. No. 13-308.

[208] Code of Civil Procedure of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 36-1341.

electronic means of communication, whereas digital copies of written procedural documents drawn up or received during the process are stored in the electronic file[209].

Secondly, the *Code of Civil Procedure* was supplemented with a section called "*The Use of Information and Electronic Communication Technologies in the Court Process*", where Article 175[1] states that procedural documents can be submitted to the court in an electronic form by means of electronic communications. Also, it was indicated that, for certain parties to the case: advocates, assistant advocates, bailiffs, assistant bailiffs, notaries, state and municipal enterprises, institutions and organizations as well as insurance undertakings, court-appointed experts and insolvency administrators, the court serves procedural documents by means of electronic communication[210].

Finally, Article 22 of the *Law on Administrative Proceedings* was amended by adding that a complaint to the administrative court can also be filed in electronic form by means of electronic communications[211]. These amendments came into force on 1 January 2013 and constituted legal opportunities to use the portal. Moreover, a tool to promote submitting documents to the court specifically in an electronic form resulted in a 25 percent reduction of the stamp duty. In both the *Law on Administrative Proceedings* and the *Code of Civil Procedure*, it was indicated that, when submitting procedural documents and their annexes to the court only by means of electronic communication, 75 percent of the amount of the stamp duty payable for the relevant procedural document is paid. This way, digitalisation of procedural documents was encouraged in Lithuania, and also a shift of court services to a digital space is encouraged.

The portal is accessible in several ways. The convenience of using the portal was increased by integrating it with the centralized state administrated platform for public electronic services (*Electronic Government Gateway*). This platform enables authentication via electronic banking, identity cards,

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[209] Law Amending Articles 36, 37, 93, 94, 120 of the Law on Courts of the Republic of Lithuania and Supplementing the Law with Article 37-1, *Valstybės žinios*, 2011, No. 85-4128. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403061> accessed 7 June 2024.

[210] Code of Civil Procedure of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 36-1341.

[211] Law Amending and Supplementing Articles 11, 12, 21, 22, 23, 24, 34, 37, 39, 50, 51, 53, 57, 61, 62, 64, 66, 68, 70, 71, 72, 73, 74, 75, 77, 78, 82, 83, 85, 87, 93, 101, 105, 106, 107, 110, 118, 119, 121, 129, 130, 131, 132, 134, 135, 137, 138, 142, 150, 155, 156, 157 of the Law on Administrative Proceedings of the Republic of Lithuania, *Valstybės žinios*, 2011, No. 85-4131, available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403064> accessed 7 June 2024.

and electronic signatures. While increasing accessibility to the portal, the courts issue the specific data for those who, for any reason, may not authenticate via the system, for instance, foreigners, to grant their access. In cases where a procedural document is served by the court by means of electronic communications, the day of service to the participant to the proceedings is the next working day after the day the procedural document has been sent. The registered users in the system may initiate case forms and other documents directly in the portal by completing over 100 templates that are placed in a document list with unique data and saving them in their own account or personal computer for a later submission to a court. The system automatically fills in pre-existing data from the user's account into the procedural documents, thus ensuring swiftness of the procedure. Another convenient functionality of the system is that *e.teismas.lt* users can count the stamp duty on the system, form the payment orders as well as pay the stamp duty, litigation costs or court-imposed fines to the court directly via the Internet banking system. This way, all litigation costs may be covered with a click of a few buttons. The system also features an integrated mediation service which helps coordinate that the interactions between the mediators and the parties to the dispute are safe and trustworthy. Another advantage of the portal is a quick access to the case material. For example, the portal user can download the following files in the *ADOC* format: the general case information, including the documents provided by the parties or issued by the court, or to access the recordings of the court hearings. It can be concluded that these functionalities not only ensure the success of the *e.teismas.lt* portal, but also improve access to justice, as well as ensure compliance with the principles of economy and efficiency.

The trend continues as more and more people are using the service in civil and administrative cases. In 2022, 86 percent of all the civil and administrative cases were handled in electronic form only (compared to 83 percent in 2021 and 80 percent in 2020)[212]. It should be noted that the growth of the portal's popularity is expected to continue. According to the *2023–2025 Strategic Action Plan of the National Courts Administration*, the number of users of the Lithuanian courts' electronic service portal e.teismas.lt in 2022

[212] Courts of Lithuania, Results of the Activity of 2022. Available at: <https://www.teismai.lt/data/public/uploads/2023/03/teismai2023-1.pdf> accessed 7 June 2024.

was 87 000, whereas, in 2023, it reached 107 000, and it is expected to rise up to 109 000 in 2024 and 110 000 in 2025[213].

Furthermore, it is expected that more and more people will be using electronic services offered by the *e.teismas.lt* subsystem: formation of procedural documents in civil and administrative cases, services of submitting procedural documents to the court and receiving them from the court via electronic means, stamp duty information management services, court-ordered fines and awarded litigation costs to the state with information management services, and services for familiarization with case materials. On 30 June 2022, the Parliament of the Republic of Lithuania adopted amendments to the *Code of Civil Procedure* of the Republic of Lithuania[214] and to the *Law on the Legal Proceedings of Administrative Cases* of the Republic of Lithuania[215]. The regulatory changes also include amendments aiming to encourage participants to use electronic means of communication throughout the proceedings, thus creating preconditions for a more efficient reduction in costs of litigation – when submitting procedural documents and their annexes to the court only by means of electronic communication and expressing a wish to receive procedural documents only by these means, a reduced amount, i.e., only 75 percent of the amount of the stamp duty payable for the relevant procedural document shall be paid. According to the adopted amendments, the reduced court fee may only be applicable if electronic means of communication are used throughout entire proceedings. On the contrary to the previous regulation, not only after submitting procedural documents and their annexes to the court only by means of electronic communication, but also upon expressing a wish to receive procedural documents only by these means, a person will be able to take advantage of the 25 percent stamp duty discount. These amendments came into force on 1 January 2023.

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[213] 2023-2025 Strategic Action Plan of National Courts Administration of Lithuania. Available at: <https://www.teismai.lt/data/public/uploads/2022/12/2023-2025-m.-nta-strateginis-veiklos-planas.docx> accessed 7 June 2024.

[214] Law amending articles 27, 35, 80, 82, 86, 115, 162-2, 284, 350, 515, 577, 582 and 608 of the Code of Civil Procedure of the Republic of Lithuania, Teisės aktų registras, 2022, No. 15470. Available at: https://www.e-tar.lt/portal/lt/legalAct/bf5d9910035111edb32c9f9d8ba206f8 accessed 7 June 2024.

[215] Law amending articles 35, 38 and 105 of the Law on Administrative Proceedings of the Republic of Lithuania No. VIII-1029, Teisės aktų registras, 2022, No. 15445. Available at: https://www.e-tar.lt/portal/lt/legalAct/ba2d7a10034611edb32c9f9d8ba206f8.accessed 7 June 2024.

It can be concluded that the LITEKO subsystem e.teismas.lt, which has already been operating for over a decade, represents a significant stage in the digitalisation of Lithuanian courts. The portal is in line with the principles of efficiency and effectiveness, and it increases access to justice and convenience of providing court services, whereas the increasing popularity and perspectives show its growing popularity. At the same time, however, this success highlights a paradox: the very tools that make the court services more accessible may also create new forms of exclusion and vulnerability. Understanding this paradox is crucial for assessing whether digitalisation ultimately strengthens or weakens access to justice, which is an issue that will be examined further in this dissertation.

2.1.3. Remote Hearings

Working from the kitchen table does not constitute the long-hailed disruption of the business models of lawyers[216]

The COVID-19 pandemic challenged every area of life imaginable, and the courts worldwide were no exception. As pointed out by the European Commission, a high level of digitalisation helped to limit disruption[217]. General changes in procedural and court law, introduction of which would normally take decades, were introduced at once[218]. For the sake of health and safety of judges, court staff, lawyers and the parties of the cases, sudden decisions had to be made in order for courts to operate, so that the fundamental human rights, especially access to justice, could still be ensured properly. The wider use of remote hearings proved to be of great importance in guaranteeing that these rights are upheld in those disturbing times.

Due to the strict lockdowns, operation of many courts worldwide was suspended, and delivery of justice was subsequently paralyzed: procedural deadlines were ignored, scheduled hearings were postponed, for safety reasons, physical visits of court buildings were restricted, and, where certain

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[216] R. Susskind, *Tomorrow's Lawyers: An Introduction to Your Future* (Oxford University Press, 2023).

[217] 2021 Rule of Law Report. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0700&from=IT> accessed 7 June 2024.

[218] K. Gajda-Roszczynialska, 'Reconstruction or Erosion of Justice Systems as a Result of COVID-19 Pandemic – Conclusions for the Legal Systems'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 153–176.

tools and technologies were implemented properly, the court staff and judges had to work remotely, whereas, elsewhere, operation of the court was halted completely. Under these circumstances, a new way to resolve cases emerged, which made it possible to reconcile the need for a functioning administration of justice, the protection of health – both individual and collective – and respect for orality and immediacy, legally required for carrying out certain procedural acts[219]. There is an axiom that remote hearings were the most popular way to deal with pandemic issues in delivering justice – at first it was mostly used in the more technologically developed countries, where digitalisation of justice was more sophisticated, and eventually it gained popularity in other countries as well. During the COVID-19 pandemic, remote court hearings became a valuable alternative to settling cases in closed sessions or postponing them until the end of the epidemic threat. It was a way of guaranteeing a person's right to court and a right to a fair trial in the most efficient way, considering the circumstances. Remote hearings helped to bypass the restrictions on the mobility and gatherings during lockdowns. To conclude, remote hearings are deemed to be the prime attribute associated with the COVID-19 pandemic in the fields of civil and administrative justice. The abruptly created and fostered infrastructure will undoubtedly help courts in various countries worldwide to be more resilient to disruptions similar to the COVID-19 pandemic in the future; however, discussions regarding the further use and the scope of using remote court hearings are still the topics of debate of legal scientists and governments.

Undoubtedly, certain factors determined the fact that courts were able to continue the exercise of their judicial functions without significant interruption. In some countries (for example, Denmark, Greece, Moldova, the Netherlands, Switzerland, Slovenia, Ireland, and Croatia) the courts functioned to a limited extent so that hearings were held and decisions were made only in the so-called urgent Justice (Austria) or the judiciary (Slovenia). Germany, on the other hand, has taken a completely different approach by leaving judges the right to decide which cases and which hearings must be withheld and which cases are not delayed even in a pandemic[220]. Among the

[219] G. Inchausti, 'The Impact of COVID-19 Pandemic on Spanish Civil Justice: Remote Hearings as a New Tool for the Effectiveness of the System'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 199–222 (p. 204).

[220] D. Sessa, 'The COVID-19 Pandemic and the Rule of Law – the Lesson to be Learned'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic*

European countries (Poland, Estonia, Slovenia, Greece, Austria, Romania, Germany, France, Spain and Portugal), and in some African countries (Ghana and Liberia), and also in New Zealand, the vast majority of nations developed legal solutions and technical tools enabling remote hearings to be conducted, but, in half of them, there was no technical possibility to conduct such hearings before the COVID-19 pandemic outbreak. Only in Slovenia, Greece, Liberia, and Spain, before the outbreak of the COVID-19 pandemic, there had been no legislative solutions that would have allowed remote hearings[221]. The technological progress of courts and *ad hoc* solutions with regard to the pandemic were the main elements in how successfully the courts dealt with the issues caused by the pandemic. For example, in Poland, archaic procedural solutions were taken: not allowing for submission of pleadings and communication with court via information technology channels, under conditions of lack of a fully digital access to court files, as well as lack of fully operating system of the service of correspondence shortly paralyzed the Polish court system[222], whereas in Lithuania, for example, the issues caused by the COVID-19 were not as disturbing due to the fact that remote court hearings were introduced earlier, and case files were digitalised.

While it is still too early to conclude on the impact of the pandemic in the everyday life, the overall picture appears to be the standardization of remote court hearings for the future. *Ad hoc* decisions adopted in the disruptive time, intended to be temporary, became a standard that will be upheld in the future. The pandemic has accelerated the shift into an online environment, as well as the implementation of various technologies in courts worldwide and increased the use of communication by digital means. In more than 160 countries, hearings can now be conducted remotely, largely by video[223]. It can be stated that it is unlikely that post-pandemic court systems will remain the same as

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on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution (2023), pp. 25–36 (p. 29).

221 U. Zółtak and B. Jedrys, 'Common Courts and Pandemic COVID-19 – the Lesson that should be Learned from Practice'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 115–136 (p. 128).

222 M. Dziurda and P. Grzegorczyk, 'The Influence of COVID-19 Pandemic on the Polish Civil Proceedings from the Perspective of the Supreme Court'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 85–114 (p. 86).

223 R. Susskind and D. Susskind, *The Future of the Professions: How Technology Will Transform the Work of Human Experts, Updated Edition* (Oxford University Press, 2022).

they were before, however, remote court hearings are just a beginning and far from a revolution in court services. In the long run, the pandemic is not considered a game changer, especially for the already highly digitalised states, such as, for example, Estonia, Latvia, or Lithuania. States will have to decide to what extent the technology intrusion in their court systems will be justified because, in a world where we are used to getting all the services and goods with the click of a few buttons, let us admit, our administration of justice is becoming cumbersome.

What concerns the use of remote hearings in Lithuania, way before the COVID-19 pandemic forced the courts to change the way they operate and to move to a digital space, manifestations of remote hearings were already observed in both civil and administrative courts in Lithuania. More than a decade ago, guidelines for organizing remote court hearings and recording of court proceedings came into force[224], which could be used by judges examining civil and administrative cases as well as persons participating in such cases. Moreover, on the 1st of March 2013, Art. 175^2 of the Code of Civil Procedure came into force, which legitimized the use of IT (videoconferences, teleconferencing, etc.) during court hearings. These legal norms legitimized the use of technologies in questioning witnesses, experts, persons involved in the proceedings and other parties to the proceedings, as well as during site inspections and collection of evidence[225]. In addition, on the 1st of March, 2013, Art. 11 of the Law on Administrative Proceedings of Lithuania was supplemented with Part 5 stating that "the participation of process participants in court hearings can be ensured using information and electronic communication technologies (via video conferences, teleconferences, etc.). By using these technologies, reliable identification of process participants and objectivity of explanations, testimony, questions and requests must be ensured" came into force[226]. To sum up, both in the administrative and in the

[224] Order of the Minister of Justice of the Republic of Lithuania No. 1R-309 Regarding the Approval of the Description of the Procedure for the Use of Video Conferencing and Teleconferencing Technologies in the Examination of Civil and Administrative Cases of 7 December 2012. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.439221/asr> accessed 7 June 2024.

[225] Law Amending and Supplementing the Code of Civil Procedure of the Republic of Lithuania No. XI-1480. Available at: <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403087> accessed 7 June 2024.

[226] Law Amending and Supplementing the Following Articles of the Law on Administrative Proceedings of the Republic of Lithuania: 11, 12, 21, 22, 23, 24, 34, 37, 39, 50, 51, 53, 57, 61, 62, 64, 66, 68, 70, 71, 72, 73, 74, 75, 77, 78, 82, 83, 85, 87, 93, 101, 105, 106, 107, 110, 118, 119, 121, 129, 130, 131, 132, 134, 135, 137, 138, 142, 150, 155, 156, 157. Available at: https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.403064.

civil justice, the possibility to organize remote court sessions became valid more than a decade ago, i.e., in 2013.

It should be noted that the possibility for individuals to participate in court hearings remotely was established during the implementation of the cooperation program, which aims to reduce economic and social disparities in the enlarged EU, involving the project of the Republic of Lithuania and the Swiss Confederation called "*Creation and Implementation of a Video Transmission, Recording and Storage System in Courts*", which ran from 2011 to the end of 2015. The tasks of the project were not only to optimize the work of the courts in terms of costs and time and to expand the use of modern technologies in court activities, but also to ensure opportunities for the vulnerable groups of society to participate in court hearings[227]. Remote court hearings are convenient concerning the participation of the disabled, hospitalized persons, or persons with health issues, and also, conducting cases this way also contributes to saving on the costs of escorting persons in prisons. It protects judges and court staff both from infections and violence. After providing 18 courts and 13 prisons in the country with video conferencing equipment at the end of the year 2014, in 2015, courts started organizing remote court hearings. Interestingly, 198 hearings out of a total of 239 were held by Vilnius Regional Administrative Court. At first, remote court hearings were not implemented that often. Usually, they were used in cases when one or a few participants were abroad or imprisoned, as well as when there was a need to protect the victim of the crime and/or a juvenile witness.

In addition, the benefits of teleconferencing go beyond national borders – it is an irreplaceable tool if the parties are unable to meet face-to-face because of geographical distance[228]. Interestingly, according to the Council Regulation on cooperation between the courts of the Member States in the taking of evidence in civil or commercial matters, adopted back in 2001, the requesting court may ask the requested court to use communications technology at the performance of the taking of evidence, in particular by using videoconference and teleconference. Moreover, it is indicated that the central body or the competent authority shall encourage the use of communications

[227] Information retrieved from the *Lietuvos teismai* [Lithuanian Courts] webpage, available at: <https://www.teismai.lt/lt/nacionaline-teismu-administracija/projektai/igyvendinti-projektai/149> accessed 7 June 2024.

[228] M. H. Conley Tyler and M. W. Mcpherson Online Dispute Resolution and Family Disputes, *Journal of Family Studies*, 2006, 12(2), pp. 165–169.

technology, such as videoconferences and teleconferences[229]. Accordingly, although the possibility of using these technologies was foreseen at the EU level already in 2001, unfortunately, it was implemented in Lithuania only more than a decade later.

The COVID-19 pandemic has become the major reason to promote remote court hearings and to apply legal rules in a more flexible manner. It was decided for remote court hearings not to establish a special platform, but rather to use different well-known platforms. The *Zoom* platform was commonly used, as all courts got licences for this technology. It was also possible to organize hybrid court hearings, when the judge and some participants of the proceedings physically appear in a courtroom, whereas other participants take part in the hearing remotely.

On March 13, 2020, the Judicial Council adopted recommendations where it was indicated that, when possible, all oral cases are organized by using remote court hearings, whereas, in the cases where it is not possible, to it was decided to postpone the court hearings scheduled for the hearing of the oral proceedings for a period of 14 days accordingly, except for the cases related to the performance of necessary procedural steps (for example, when there is a need to take a child from an unsafe environment)[230]. 3 days later, on March 16, 2020 the Judicial Council adopted additional recommendations, suggesting to continue hearing cases by written procedure (taking certain organizational measures related to the minimum possible physical contact between the judges and the other staff), and, except in urgent cases, to postpone the hearing of oral cases until the end of the quarantine regime[231]. During the second quarantine, on October 30, 2020 the Judicial Council adopted recommendations[232], where, unlike in the aforementioned

[229] Council Regulation (EC) No 1206/2001 of 28 May 2001 on Cooperation between the Courts of the Member States in the Taking of Evidence in Civil or Commercial Matters, OJ L 174, 27.6.2001, pp. 1–24.

[230] Recommendations of 13 March 2020 of the Council of Judges regarding the Prevention of Coronavirus COVID-19 in the Courts No. 36P-47-(7.1.10) to the Courts of the Republic of Lithuania with Copies to Lithuanian Bar Association and General Prosecutor's Office of the Republic of Lithuania. Available at: <https://www.infolex.lt/ta/587007> accessed 7 June 2024.

[231] Recommendations of 13 March 2020 of the Council of Judges regarding the Execution of Court Functions during the Quarantine Period No. 36P-48-(7.1.10) to the Heads of the Courts of the Republic of Lithuania. Available at: <https://www.infolex.lt/ta/587006> accessed 7 June 2024.

[232] Information retrieved from the *Lietuvos teismai* [Lithuanian Courts] webpage, available at: <https://www.teismai.lt/lt/naujienos/teismu-sistemos-naujienos/del-teismu-funkciju-vykdymo-ekstremaliosios-situacijos-metu/8121> accessed 7 June 2024.

recommendations, the need to ensure the continuity of court activities by using remote communication tools was emphasized. When it was not possible to organize court hearings remotely, it was recommended to cancel the oral court hearings scheduled during the quarantine, except in emergency cases. Accordingly, court hearings in cases pending in oral proceedings should have been scheduled after the end of the quarantine regime in the municipality. Namely, the recommendations of the Judicial Council, adopted as a response to the health crisis, was an impetus for the courts to practically (and massively at that) use the possibilities of remote proceedings provided for in the relevant legal acts[233].

During and after the COVID-19 pandemic, remote court hearings became more popular in both civil and administrative courts in Lithuania. For example, in 2021, on the portal of the Lithuanian courts' electronic services e.teismas.lt, about 83 percent of all civil and administrative cases were being handled in an electronic form only (compared to, accordingly, 80 percent in 2020, and 74 percent in 2019). The increased scale of e.teismas.lt services was undoubtedly determined by the unfavorable epidemic situation of the COVID-19 pandemic, and, as a result, restrictions were introduced along with recommendations to organize court hearings remotely[234]. It also resulted in a wider use of remote court hearings: in 2021, 39,517 remote court hearings were organized, whereas, in 2020, this number was 14,838, and, in 2019 only 2,612 cases were processed remotely, and only stationary video conferencing equipment was being used[235].

When talking about the perspectives of the remote court hearings in Lithuania, it can be concluded that their popularity will keep increasing, and technology will continue to be extensively applied. The most recent recommendations[236] for remote court proceedings, adopted by the *Judicial*

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[233] R. Azubalyte, 'Pandemijos poveikis teisei į teisminę gynybą Lietuvoje' [Impact of the Pandemic on the Right of Legal Defense in Lithuania]. In: L. Jakulevičienė, R. Valutytė, D. Sagaitienė (eds.), *Teisė ir COVID-19 pandemija*, (2021), pp. 371-407 (p. 396).

[234] More statistics on courts is available at the National Courts Administration of Lithuania report 'The Courts of Lithuania: Results of the Activity of 2021. Available at: <https://www.teismai.lt/data/public/uploads/2022/03/teismai2022-taisytas.pdf> accessed 7 June 2024.

[235] More statistics on courts is available at the National Courts Administration of Lithuania report 'The Courts of Lithuania: Results of the Activity of 2021. Available at: <https://www.teismai.lt/data/public/uploads/2022/03/teismai2022-taisytas.pdf> accessed 7 June 2024.

[236] Recommendations of the Judicial Council regarding the Organization of Remote Court Hearings of 27 August 2021. Available at: <https://tinyurl.com/2jy3x26e> accessed 7 June 2024.

Council of Lithuania, set the rules for court hearings generally, and the COVID-19 pandemic situation is not even mentioned at all, which means that these recommendations can be applied generally. They provide useful, practical advice to courts and participants to judicial proceedings on how to participate in remote court hearings, and how the principles of publicity and confidentiality must be safeguarded in such proceedings. The court practice also reaffirms that if the participants to the proceedings have agreed to a remote court hearing and there are all possibilities to connect to remote court hearings, the parties have the opportunity to speak out their arguments, and there are no formal procedural grounds to challenge the judgment[237]. Moreover, when, in an administrative case, the court of the first instance decides to appoint the case to be examined in the order of oral proceedings via a video conference, and the applicant refuses this opportunity without indicating any objective reasons that would allow the court to conclude that a video conference could not be organized in the case or that the applicant's right to be heard in this way would not be properly ensured, the Supreme Administrative Court of Lithuania states that the applicant must properly motivate his/her objection to a remote hearing of the case[238]. This judgement is in line with a cumbersome decision in this regard of the ECtHR in the case *Jallow v. Norway*, where the court held that conducting a remote public hearing does not violate Art. 6 of the Convention for the Protection of Human Rights and Fundamental Freedoms, provided that all procedural guarantees are safeguarded[239].

Furthermore, the fact that remote court hearings are here to stay can be proved by the fact that, on 22 February 2022, the Minister of Justice of the Republic of Lithuania adopted amendments to the "*Description of the Procedure for the Use of Video Conferencing and Teleconferencing in Civil and Administrative Cases*"[240], stating that when a public court session is held while using video conferencing and/or teleconferencing technologies, and it is not possible to allow individuals to watch this court session directly in a courtroom or another place of hearing, it may be observed and/or listened

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237 For instance, judgment of the Lithuanian Court of Appeal in civil case No. 2A-167-450/2022, 29 March 2022.

238 Judgment of the Supreme Administrative Court of Lithuania in administrative case No. A-1281-624/2020, 19 February 2020.

239 ECtHR, *Jallow v. Norway*, No. 36516/19, 2 December 2021.

240 Order of the Minister of Justice of the Republic of Lithuania No. 1R-59 regarding the Amendment of the Description of the Procedure for the Use of Video Conferencing and Teleconferencing Technologies in the Examination of Civil and Administrative Cases of 7 December 2012. Available at: https://www.e-tar.lt/portal/lt/legalAct/a0504470948c11ecaf3aba0cb308998c.

either by rebroadcasting the sound of the court session and, if possible, the image into a separate courtroom open to the public or another room in the court building, or by joining a video conference or a teleconference. The court hearing the case decides which of the abovementioned remote methods available to the court shall be used after assessing the circumstances that are significant for ensuring a safe environment of the court, the protection of personal data, and the requirements for the implementation of the provisions of the relevant legal acts. These amendments ensure the principle of the openness of proceedings, requiring that a fair and public hearing – one of the most widely discussed risks related to remote court hearings by scholars – is ensured when the court hearing takes place while using video conferencing and/or teleconferencing technologies. On 28 February 2022, updates were implemented in the *LITEKO* system accordingly. For example, in the "*Public Schedule Search*" section, information about the court hearing has been added with a new '*Remote*' option, and, next to a publicly announced court hearing with the corresponding attribute, it is possible to select the '*Register*' function[241]. Moreover, insufficient equipment and poor digital literacy are among the main reasons of unsuccessful application of remote court hearings, and, according to the *2023–2025 Strategic Action Plan*, due to, *inter alia*, the accelerating transfer of court processes and services involving the electronic space and the impact of the pandemic on the changed nature of work, the *National Courts Administration* envisages ensuring that at least 6 percent of computerized workplaces are updated every year, and requires raising the qualification of court employees accordingly[242].

Remote hearings are yet another successful example of applying technologies in both civil and administrative process that the society, parties to the case, judges and the court staff find a promising lane to the future. Undoubtedly, in order for the successful further development and use of video conferences or teleconferences, an improvement of judges' competencies is needed – including extensive training, on both national and international levels on technology – as well as the implementation of a separate system for remote hearings and introduction of innovative technologies. It is an axiom that the courts that still run a paper-based document management system or a

[241] European Union Department, Ministry of Foreign Affairs of the Republic of Lithuania, Lithuanian Contribution to the 2023 Rule of Law Report, January 2023. Available at: <https://commission.europa.eu/system/files/2023-07/88_1_52806_input_mem_lithuania_en.pdf> accessed 7 June 2024.

[242] 2023–2025 Strategic Action Plan of National Courts Administration of Lithuania. Available at: <https://www.teismai.lt/data/public/uploads/2022/12/2023-2025-m.-nta-strateginis-veiklos-planas.docx> accessed 7 June 2024.

complex and slow functioning court system, are facing more challenges, and therefore constant improvements of Lithuanian court systems are essential.

Indeed, even when users enjoy, say, the very latest solutions in video conferencing technology, it is worth remembering that what they have today represents the least advanced version of this technology they will ever use[243]. With remote hearings gaining more and more popularity throughout the world, they can be further improved with the help of immersive telepresence, augmented reality, and virtual reality.

Virtual reality is usually described as an interactive 3D visualization system (a computer, a game console, or a smartphone) supported by one or more position trackers and head-mounted display. The trackers sense the movements of the individual and report the collected data to the visualization system, which updates the scene in real time[244]. From a different point of view, virtual reality is defined as an advanced form of human–computer interface which allows the user to interact with and become immersed in a computer-generated environment in a naturalistic fashion[245]. The main idea of virtual reality is that it mostly or entirely substitutes everyday environment with a simulated one. Virtual reality is the most effective features ever invented for researching what a human being actually is – and how we think and feel[246]. Indeed, what happens in virtual reality seems like it happens in real life. For example, people in virtual reality environments physiologically respond to actions done to them in virtual reality. Subjects who see themselves getting slapped in virtual reality respond with skin conductance and heart rate levels as if they were actually getting slapped[247].

What concerns court hearings in the metaverse or virtual reality, a virtual court room could be an excellent training tool for judges, court staff, lawyers, parties to a dispute, and everyone in general. However, the idea of the participants in court hearings, judges and lawyers entering a virtual court, rather than a physical one, and conducting procedures there is not unthinkable. A court room in the metaverse might look the same as the traditional ones we

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[243] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

[244] G. Riva et al., 'Transforming Experience: The Potential of Augmented Reality and Virtual Reality for Enhancing Personal and Clinical Change' (2016) *Front Psychiatry 7*:164, pp. 1-14.

[245] M. T. Schultheis and A. A. Rizzo, 'The Application of Virtual Reality Technology in Rehabilitation' (2001) *Rehabilitation Psychology 46*(3), pp. 296–311.

[246] J. Lanier, *Dawn of the New Everything: A Journey Through Virtual Reality* (The Bodley Head, 2017).

[247] M. Slater et al., 'First Person Experience of Body Transfer in Virtual Reality' (2010) *PLoS ONE 5*(5), online paper.

are used to, or it can be enhanced. Moreover, in a virtual environment, the parties could participate in court hearings as avatars. After all, justice is blind, isn't it? Regardless of avatars nowadays looking sketchy, they are likely to improve greatly in time. A digital version could be created of a different sex, race, appearance, with different facial features, without our impairments and disabilities. Even though, with the help of avatars, we may be able to significantly reduce subconscious bias, virtual reality software allows one, for example, to modify the facial expressions that one is sending, which could hide potentially valuable visual cues related to how much attention the interviewees are paying, how much interest they are showing, and the like[248]. Although this discourse is not the subject of this study, legal scholars are invited and highly encouraged to explore it, as the conclusions obtained can be extremely valuable in determining whether to allow the use of this technology in courts in general.

Even though the use of augmented reality in courts is not as popular, it is worth mentioning as well. Augmented reality is a type of technology that allows the augmentation of our real experience blending both 'real-world elements' and 'virtual elements', which may involve not only the view but also hearing, touch, and smell[249]. Also referred to as hybrid reality, computer-mediated reality, or mixed reality, these systems supplement reality and are somewhere in the middle between virtual reality (fully artificial) and telepresence (fully real). In contrast to virtual reality that replaces the world altogether with a simulation, it combines a computer-generated image and the real world by adding digital content to the real world. Augmented reality is a predominantly real-world space in which virtual elements are inserted in real time[250]. It can be done with the help of different kind of devices, the most popular ones for now being smartphones, but it could also be, for example, contact lenses, special glasses, or eyeglass-mounted cameras. For example, the Chinese police are already wearing special glasses equipped with facial-recognition technology which are connected to a database of 10,000 suspects and capable of "highly effective screening" to help identify suspects[251].

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[248] M. A. Lemley and E. Volokh '*Law, Virtual Reality, and Augmented Reality*' (2018) *University of Pennsylvania Law Revue*, *vol. 166*, no. 5, pp. 1051-1138.

[249] M. C. Juan et al., 'Using Augmented Reality to Treat Phobias' (2005) *IEEE Computer Graphics and Applications*, *vol. 25*, no. 6, pp. 31-37.

[250] C. Kapp and M. M. Balkun, 'Teaching on the Virtuality Continuum: Augmented Reality in the Classroom' (2011) *Transformations: The Journal of Inclusive Scholarship and Pedagogy*, *22*(1), p. 100-113.

[251] J. Chin, 'Chinese Police Add Facial-Recognition Glasses to Surveillance Arsenal' (2018) *Wall Street Journal*, available at: <https://www.wsj.com/articles/chinese-

Augmented reality glasses can help people interact with coworkers, business partners, friends, and family who are not physically present, by projecting the other person's image into the wearer's field of view. Coupled with high quality audio, such video presence can create prominently more lifelike interactions than the ones currently available with *Skype* and similar videoconferencing systems[252]. The opportunities of augmented reality and virtual reality to interact are incomparable with the ones offered by video-conferencing. To conclude, according to Ronald Azuma, one of the pioneer researchers in the field, the characteristics of augmented reality are: 1) it combines the real and the virtual; 2) it is interactive in real time; and 3) it is registered in 3-D[253].

Augmented reality can enhance the work of courts in two ways: it can provide textual (or audible) commentary on objects and people at whom the user is looking, or else it could be used to support virtual hearings (eye-tracking software could detect the people or objects on-screen that users are focusing upon and, again, offer explanations of whatever has attracted their attention, or when the virtual hearing is of the kind that some participants are attending remotely, augmented reality could superimpose images that would provide a clearer view of the court)[254].

Finally, it is likely that, in the future, remote hearings will be supplemented with the above-outlined advantages, offered by three-dimensional holographic services. Holographic telepresence technology is a cutting-edge innovation that enables life-like, three-dimensional (3D) representations of people or objects to be projected in remote locations, facilitating real-time communication and interaction. This technology combines advancements in computer graphics, optics, and data transmission to generate high-resolution, full-color holograms that can be viewed from any angle without the need for special eyewear or headsets[255]. Holographic telepresence has the potential to revolutionize the way individuals and organizations communicate and collaborate across distances. By providing an

police-go-robocop-with-facial-recognition-glasses-1518004353> accessed 7 June 2024.

252 M. A. Lemley and E. Volokh, 'Law, Virtual Reality, and Augmented Reality' (2018) *University of Pennsylvania Law Revue*, *Vol. 166*, No. 5, p. 1051-1138.

253 R. T. Azuma, 'A Survey of Augmented Reality' (1997) *Presence: Teleoperators & Virtual Environments*, *6*(4), pp. 355-385.

254 R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

255 V. M. Bove, 'Display Holography's Digital Second Act' (2014) *Optics and Photonics News, 25*(2), pp. 32-39.

immersive, 3D representation of participants, holographic telepresence can facilitate more engaging and interactive remote meetings, conferences, and presentations, as well as enhance collaboration in fields like education, healthcare, and entertainment[256]. This technology enables lifelike interactions, without the need for everyone to gather in one physical place. It can enhance courts by allowing witnesses and defendants to testify with the help of holograms. For example, in 2023, in mock trial competition at William & Mary Law School, the court called hologram witnesses to the stand, with the help of a hologram device called *Epic*[257]. It can also contribute immensely in presentations of evidence, testimonies and reconstructing virtual courtrooms with, for example, realistic crime scenes. Needless to say, holographic telepresence, as well as both virtual reality and augmented reality, makes courts more conveniently available for individuals with disabilities, thereby enhancing an equal access to justice.

R. Susskind predicts that, first of all, virtual hearings will become increasingly lifelike as we take advantage of successive generations of 'telepresence'. Next, our participation in physical and virtual hearings will be enhanced by a technology known as 'augmented reality'. Thirdly, we should expect in due course a world in which the court service might be delivered in some form of virtual reality[258]. Whatever turn remote hearings could take, it should be emphasized that, as already mentioned, the course of the court hearing, the ongoing processes, the main participants in court hearings, and their functions will remain unchanged – which means that it will not be a paradigmatic change, and just a change of one convenient technology to a more convenient one.

While remote hearings have proven crucial for maintaining continuity of justice and expanding access during the pandemic, they also raise fundamental questions that extend beyond convenience. Do such hearings truly bring individuals closer to justice, or do digital divides and technical barriers risk excluding some participants altogether? Can parties meaningfully explain their problems to the court in a virtual format, and does remote participation compromise the quality of advocacy and representation? Moreover, remote

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[256] M. Billinghurst and A. Duenser, 'Augmented Reality in the Classroom' (2012) *Computer*, *45*(7), pp. 56-63.

[257] K. Sloan, 'Beam me up, Counselor. Are Hologram Witnesses Headed to Court?' (Reuters, 2023), available at: <https://www.reuters.com/legal/government/beam-me-up-counselor-are-hologram-witnesses-headed-court-2023-05-16/> accessed 7 June 2024.

[258] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

hearings challenge the traditional notion of the public hearing, raising concerns about accessibility, anonymity, transparency, procedural safeguards, and technological security. These interrelated issues of access, representation, fairness, and publicity will be critically examined in Section 3.1.3, and throughout Part 3 of this dissertation.

2.1.4. Asynchronous Court Processes

There is no one definition to online dispute resolution as it varies according to numerous factors. Currently, in the legal doctrine, the term 'online dispute resolution' is being used to describe two distinctive conceptions. The first one – the broader one – indicates that online dispute resolution is deemed to be any type of dispute resolution that is mainly organized on an internet platform. For example, if a traditional court was transferred to an online platform, we would think of it as of online dispute resolution. Historically, the idea behind the foundation of online dispute resolution suggests a much narrower definition where online dispute resolution is a sub-institute of alternative dispute resolution. More precisely, it is a traditional alternative dispute resolution form, such as mediation or arbitration, transferred online, and thus becoming e-mediation, e-arbitration, and so forth[259]. However, as technology intrusion in public, as well as in the private sector, became prominent, the 'online dispute resolution' concept became more widely applicable to the work of courts online as well. Asynchronous online courts are deemed to be upgraded online courts.

Asynchronous court processes suggest using a special online platform, where the parties could exchange text, audio and/or video messages, and the court would deliver decisions. In contrast to gathering to a physical place or to remote hearings, the main idea is not to gather at all, but rather to use this platform and to perform judicial functions in a form of ongoing exchange of emails. Traditional court work is synchronous in the sense that the participants must gather (whether in a courtroom or virtual hearing) at the same appointed hour, and the proceedings unfold in real time. It is a live performance. In contrast, online court activity is undertaken asynchronously, which means that there is no need for everyone to be available at the same time. Similarly to using email, the participants can make their contributions whenever it suits

[259] See more about the online dispute resolution in G. Strikaitė, 'Online Dispute Resolution: Quo Vadis, Europe?' (2020) *The Future Decade of the EU Law: 8th International Conference of PhD Students and Young Researchers: Conference Papers*, pp. 218-226.

them[260]. The abandonment of direct interaction gradually shapes understanding of court judging as a service. And, this way, this service can be cheaper, more accessible, and delivered in a more convenient way. Asynchronous online platforms have no working hours, they are accessible 24 hours a day, 7 days a week, which makes them more conveniently accessible. It also saves the time and cost of travel. Conducting hearings online asynchronously breaks the traditional dependency between a specific judge, court room, timeframe, and litigants. Granting the judges greater control and flexibility over the management of their growing dockets can result in improved efficiencies and reduced delays[261]. In addition, asynchronous court process systems are cheaper, hardware and software requirements are minimal, and it could also contribute to filing of court documents via structured web-forms and/or digital text Eds, thereby improving their completeness and legibility and facilitating their processing[262]. Other advantages over oral hearings include that, for example, no one is being interrupted, and no one usurps and dominates the hearing, either.

International experience shows different pathways to asynchronous court processes. For example, the court reform program in England and Wales, *inter alia*, aims to create an online civil court that resolves all civil claims under £25,000[263]. Interestingly, the Internet-based court service with extended court functions would operate on a three-tier system, where proceedings are discussed to be conducted asynchronously[264].

Secondly, the *Matterhorn* platform, developed at the University of Michigan, USA, successfully piloted in 2014, and is now deployed in more than forty courts across at least eight states in the USA. It allows the litigants to communicate asynchronously with the judges, prosecutors, and court staff[265]. By virtue of being accessible on smartphones around the clock, it has processed tens of thousands of cases in areas such as small claims, family

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[260] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

[261] A. Sela, 'Streamlining Justice: How Online Courts Can Resolve the Challenges of Pro Se Litigation' (2016) *Cornell Journal of Law and Public Policy*, *Vol. 26*, No. 2, pp. 331-388.

[262] A. Sela, 'Streamlining Justice: How Online Courts Can Resolve the Challenges of Pro Se Litigation' (2016) *Cornell Journal of Law and Public Policy*, *Vol. 26*, No. 2, pp. 331-388 (pp. 358-359).

[263] N. Ebner and E. E. Greenberg, 'Strengthening Online Dispute Resolution Justice' (2020) *Washington University Journal of Law and Policy*, *Vol. 63*, pp. 65-117.

[264] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

[265] See more at: https://catalisgov.com/matterhorn-LP/.

compliance, and lesser misdemeanors[266]. This suggests that asynchronous court processes have the potential to function effectively in decentralized judicial systems, particularly for low-level and high-volume disputes.

Finally, China, represents the most advanced nationwide model. In 2017, the *Hangzhou Internet Court*, which is deemed the first internet court in the world, was established[267]. In 2018, the court launched the asynchronous court trial, which allows all court proceedings, including mediations and trials, to be conducted asynchronously so that to provide more convenient services. To start a claim in the asynchronous court, the plaintiff should select the type of dispute on the court's platform to file the case online and submit all documents electronically. Next, a mediator will intervene to help the parties take an online pre-litigation mediation. If the mediation fails, the case moves to a judge. To protect the autonomy of the parties, asynchronous procedures are not mandated. Only after acquiring the consent of all parties and the approval of judges are such proceedings initiated. Otherwise, synchronous procedures would be applied.

Specifically, the *Hangzhou Internet Court* divides an asynchronous online trial into four sessions: questioning, debating, closing statements, and delivering the judgment. In the process of questioning, one party provides questions to the adversarial party within twenty-four hours after the judge mandates, and both parties may answer any questions if they want; after the twenty-four hours, the parties cannot question anymore, and only the judge may question. Then, it moves to the debate session, during which, the parties may debate and present statements supporting their claims within forty-eight hours. In the twenty-four hours following the debate session, both parties direct closing statements. If the judge considers it necessary, the judge may cancel the questioning session or combine the questioning and debating sessions. Finally, the judge delivers the judgment. The average court time for an online trial is twenty-eight minutes, and, for closing a case, it is forty-one days[268].

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[266] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

[267] Information has been retrieved from The Supreme People's Court of the People's Republic of China webpage, and is available at: <https://english.court.gov.cn/index.html> accessed 7 June 2024.

[268] C. Xi, 'Asynchronous Online Courts: The Future of Courts?' (2023) *Oregon Review of International Law*, *Vol. 24*, pp. 39-94.

Moreover, in 2018, the *Beijing Internet Court* and the *Guangzhou Internet Court* were established, allowing asynchronous court judging[269], whereas, in 2021, the Supreme People's Court of the Republic of China adopted *The Online Litigation Rules for the People's Courts*, allowing asynchronous online courts across the country[270]. This model reflects significant judicial trust in asynchronous court processes as a legitimate mode of adjudication, supporting their integration into national legal frameworks. Taken together, these examples indicate that asynchronous court processes are not merely a theoretical concept but an emerging practice across different legal traditions. They demonstrate scalability, efficiency, and accessibility gains, while also raising important questions about the preservation of fair trial guarantees.

Current reforms, such as the expansion of remote hearings and the integration of digital case-management tools, signal a gradual move toward more flexible procedural models. In this context, asynchronous court processes could be considered a natural next step, particularly as many jurisdictions experiment with similar innovations. Yet, any such development would require careful constitutional scrutiny: efficiency gains must not come at the expense of transparency, impartiality, or procedural fairness.

In conclusion, asynchronous court processes, which allow parties to participate in proceedings at their convenience through digital platforms, represent a significant innovation in the delivery of judicial services. Comparative experience suggests they are particularly suitable for low-value, high-volume claims, where efficiency and convenience are paramount. They could address many of the logistical and financial barriers associated with the traditional court processes. However, adopting such a transformative approach requires a thorough evaluation of its implications for access to justice, particularly in systems that have long relied on synchronous, public hearings.

At the same time, asynchronous processes challenge long-standing assumptions about what it means to 'have one's day in court', that is, to get an opportunity to give one's opinion on something or to explain one's actions

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[269] Information has been retrieved from The Supreme People's Court of the People's Republic of China webpage; it is available at: <https://english.court.gov.cn/index.html> accessed 7 June 2024.

[270] Online Litigation Rules of the People's Courts, Judicial Interpretation No. 12 (Promulgated by the Judicial Comm. Sup. People's Ct., 18 May 2021, effective 1 August 2021). Available at: <https://cicc.court.gov.cn/html/1/219/199/201/2208.html> accessed 7 June 2024.

after they have been criticized[271]. By replacing oral, public hearings with written or platform-based exchanges, they raise questions about publicity, immediacy, and transparency. Their reliance on digital literacy and structured templates also prompts concerns about whether vulnerable parties can meaningfully participate, and whether the quality of legal representation is preserved. More broadly, there is a risk that the convenience and efficiency of asynchronous justice may come at the cost of fairness and the perception of being heard. The implications of this shift will be further examined in the following analysis, with particular attention to how asynchronous processes affect access, fairness, and the right to a public hearing.

2.2. The Role of Technology in Judicial Decision-Making

Amara's law: We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run[272]

Human judges, once considered one of the least likely to be replaced by machines, are now facing the prospect of ceding some decision-making authority to AI as these systems are improving and are being deployed more widely in courts[273]. A 2013-dated study "*The Future of Employment: How Susceptible are Jobs to Computerisation?*", which assessed 702 occupations according to their probability of computerization, ranked judges at 271st place[274]. The potential applications of technology extend beyond the administrative functions to substantive judicial tasks. The advantages of AI in adjudication are increasingly evident as courts in several countries have already adopted such tools in their decision-making processes.

By optimizing standard and repetitive tasks, AI enhances both the efficiency and quality of judicial work. For example, in some jurisdictions in the United States, judges use an automated decision-making software *COMPAS* ('*Correctional Offender Management Profiling for Alternative*

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[271] Cambridge Dictionary, 'have (one's) day in court' (Cambridge Dictionary). Available at: <https://dictionary.cambridge.org/dictionary/english/have-day-in-court> accessed 4 August 2025.

[272] The quotation is said to have been made in the 1960s or 70s by a Stanford University computer scientist and long-time head of the Institute for the Future, Roy Amara.

[273] Z. Xu, 'Human Judges in the Era of Artificial Intelligence: Challenges and Opportunities', (2022) *Applied Artificial Intelligence*, *36*(1), pp. 1025-1045.

[274] C. B. Frey and M. Osborne, 'The Future of Employment: How Susceptible Are Jobs to Computerisation?', (2017) *Technological Forecasting and Social Change*, *Vol. 114*, pp. 254-280.

Sanctions') which uses historic data to decide which convicted defendants are most likely to re-offend. The software, developed by *Northpointe Inc*. (now *Equivant*), a private company, takes into account responses to a questionnaire, either answered by the defendant, or based on information from criminal records. The questions are quite diverse, ranging from the ones which seem to be directly related to the likelihood to reoffend (for example, about prior felony offence arrests, parole breaches) to ones less connected to it (such as, for example, who was the offender raised by, or how often was he or she or them are feeling bored). The algorithm then rates how likely a person is to commit a repeat offense on a scale from '1' (low risk) to '10' (high risk), and the judge may decide to detain the person. While *COMPAS* is often cited as an example of efficiency in judicial decision-making, its apparent objectivity has been strongly contested, particularly due to concerns about bias and opacity. Some proponents even suggest that such tools could reduce human bias by neutralizing stereotypes or unconscious prejudices, but, as is is to be discussed in Section 3.2.3, this claim is far from straightforward.

Another example is Brazil's *VICTOR* project which assists the Brazilian Supreme Court by classifying appeals based on their admissibility by using pattern recognition. The project assists the Brazilian Supreme Court by classifying the appeals in terms of their admissibility with the help of a pattern recognition mechanism. Generally, the court must take into account the importance of the case for the economic, political, and social aspects to determine the general repercussion that the decision of the highest judicial forum may have, before it proceeds to trial. Accordingly, the *VICTOR* system performs the admissibility test without any human intervention[275]. To conclude, even though the system does not perform decision-making on the merits of the case, it is an independent decision-maker on the admissibility of the case. Although *VICTOR* is often presented as a solution to Brazil's backlog, framing it as a neutral efficiency tool overlooks the deeper concern: admissibility is not a merely technical exercise, but a substantive legal safeguard which protects the litigants' rights.

The impact of AI on the justice system is significant as it has the capacity to be blended with the already existing adjudicatory or non-adjudicatory processes, and there have been questions raised about whether these processes will have an impact on the role of lawyers and judges as technology replaces

[275] See more in N. Chronowski, K. Kálmán, and B. Szentgáli-Tóth, 'Artificial Intelligence, Justice, and Certain Aspects of Right to a Fair Trial' (2021) *Acta Universitatis Sapientiae, Legal Studies, 2021*, *No. 2*, pp. 169-189.

some human decision-making and analysis processes[276]. Building on this observation, it is possible to imagine a range of future scenarios in which AI systems assist, augment or even independently perform certain judicial functions. These possibilities raise important questions about the ways how legal institutions can balance innovation with the fundamental values of fairness, accountability, and human oversight.

Even though robot-judges are still at the debating level as we have no practical examples, some scholars are asking whether we as a society will ever be willing to delegate fundamental rule-making powers and assign assertion of the legitimacy of the state to such non-human entities[277]. On the other hand, others believe that AI judges would be no less reliable (yet more cost-effective) than human judges[278]. Talking more generally, some scholars claim that, looking further ahead, a legal system without courts, as we know them, wherein contractual disputes, tort claims, and criminal allegations are all posed and 'adjudicated' entirely by machine, and without the involvement of any human lawyers whatsoever, is actually possible[279]. For example, R. Susskind suggests the idea of a certain rule being implemented, saying that – if a machine predicts a court finding in favor of the claimant with a probability greater than, for example, 95 per cent – in this case, that finding should be deemed an official resolution made by the court, is thinkable[280]. In addition, commenting on Brazil's backlog of 100 million cases, he suggests that usually it is better to have these cases disposed by opaque predictive systems that would faithfully issue decisions consistent with the judges of the past, instead of waiting for a decision by a human judge that will never come[281]. To conclude, AI has been reshaping the judicial work in many different ways. Although most of these models originate outside Europe, often in legal systems where the rule of law standards is less stringent or more flexibly

[276] T. Sourdin, 'Judge v Robot?: Artificial Intelligence and Judicial Decision-Making' (2018) *The University of New South Wales Law Journal*, *41*, no. 4, pp. 1114-1133.

[277] R. W. Campbell, 'Artificial Intelligence in the Courtroom: The Delivery of Justice in the Age of Machine Learning' (2020) *Colorado Technology Law Journal*, pp. 323-350.

[278] E. Volokh, 'Chief Justice Robots' (2019) *68 Duke Law Journal*, pp. 1135-1192.

[279] M. Richard and A. Solow-Niederman, 'Developing Artificially Intelligent Justice' (2019) *Stanford Technology Law Review*, p. 242-289.

[280] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019), p. 287.

[281] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019), p. 290.

interpreted[282], the potential of this technology, combined with the EU's ambition to become a global leader in developing trustworthy AI, and the fact that the current AI applications are limited to narrow tasks, while there still remains potential for the so-called general AI with broader cognitive capacities, this demonstrates the need to examine both the key differences between these systems and their possible use in European court systems.

AI can generally be applied in two distinct models: decision support tools and decision-making tools. The first one describes AI technology as tools aiming to improve the performance of human-judges, and, where a human judge (or a panel of judges) has the decision-making autonomy. In this case, 'AI assistants' are supporting judges in the decision-making process. AI is advising the judges in a form of making predictions and preparing judicial decisions. While AI systems predicting judicial decisions are characterized by the fact that they process large amounts of previous judicial decisions in order to detect possible correlations between input data and output data[283], AI systems preparing judicial decisions are improving the daily work of judges by, for example, providing judges with a selection of previous and similar cases, and – based on these results – they can suggest a decision in the case at hand, and, upon receiving the output, the human judge can focus on the legal reasoning and justification of the decision[284], or else, AI can contribute by preparing draft decisions that can later by reviewed by the judges. The examples of *COMPAS* and *VICTOR* systems show both the potential and the contested nature of these systems: they are framed as efficiency tools, yet they raise fundamental questions about fairness, transparency, and legitimacy. In conclusion, human judges retain the discretion to decide cases, but they do so with the help of AI systems that enhance the human judge's performance. The humans have the liberty to take into account the recommendations drawn by the AI systems fully, partly, or to disregard them outright.

The second model is the so-called robot judges which would replace human judges in adjudication processes and decide cases autonomously, thereby leaving only a minimal role to the judge. The use of such AI systems

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[282] N. Chronowski, K. Kálmán, and B. Szentgáli-Tóth, 'Artificial Intelligence, Justice, and Certain Aspects of Right to a Fair Trial' (2021) *Acta Universitatis Sapientiae, Legal Studies*, 2021, No. 2, p. 169-189.

[283] The European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment, Adopted by CEPEJ during its 31st Plenary meeting, Strasbourg, 3–4 December 2018.

[284] J. Ulenaers, 'The Impact of Artificial Intelligence on the Right to a Fair Trial: Towards a Robot Judge?' (2020) *Asian Journal of Law and Economics*, *Vol. 11*, issue 2, pp. 1-38.

is deemed as using disruptive technology which, on the contrary to the use of sustaining technology that supports and enhances the way the human judges work, would replace the usual processes. In Andrzej Olas' words, AI techniques will be used to create a system that would be technically capable and, at the same time, legally authorized to independently conduct court proceedings in place of a judge or another person empowered under the governing legal norms, while performing all the reasoning and actions necessary to pursue the proceedings and to issue a fully authoritative and binding decision resolving the dispute on its merits or terminating proceedings on procedural grounds as the case may be[285]. In this model, AI systems substitute a human judge in the decision-making process fully, and issue binding decisions autonomously. This is considered a disruptive technology, as it fundamentally alters the traditional judicial processes. This AI would be both technically capable and legally authorized to handle all necessary reasoning and actions in a court case, which results in ultimately issuing a decision without human intervention. While this model is mostly hypothetical, framing it as a natural progression of efficiency overlooks the fact that delegating legitimacy to machines raises profound constitutional challenges. Even here, the promises of efficiency and consistency must be weighed against risks of bias, opacity, and the erosion of judicial accountability. These concerns will be analyzed in more detail in Part 3.

While this vision is largely hypothetical, framing it as a natural progression of efficiency overlooks profound constitutional concerns. Delegating adjudicatory authority to machines raises questions about legitimacy, accountability, and the very foundations of the rule of law. Claims of efficiency and consistency are often presented as self-evident benefits of AI, yet, as further chapters will show, such promises conceal serious risks to impartiality, fairness and other elements of access to justice.

Taken together, these examples show that, while technologies in judicial decision-making are often praised for their promise, the associated risks are not peripheral, but central, and they explain why the adoption of AI in adjudication has been slow and contested. As outlined in Part 1, the European approach to technology integration is deliberately rights-oriented: innovation is encouraged only insofar as it enhances, rather than undermines, the protection of the fundamental rights. In this framework, the benchmarks of

[285] A. Olas, 'Looking beyond COVID-19 Pandemic: Does Artificial Intelligence have a Role to Play in Preparing the Justice System for the Next Global Pandemic or Similar Hardship? The European Perspective'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 249-276.

access to justice are treated as non-negotiable. It is precisely this awareness of risks that underlies Europe's cautious and more restrictive stance compared to other jurisdictions.

2.2.1. AI and Adjudication: Enhancing or Superseding Judicial Decision-Making?

The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by law[286]
Patients do not want neurosurgeons; they want health[287]

In the European Commission's study on the use of innovative technologies in the justice field, it is indicated that, among the good practices in the Member States currently in place, there are already those that concern areas such as, *inter alia*, anonymization of documents (for example, court decisions); speech-to-text and transcription; introduction of chatbots for strengthening the access to justice and public services, and Robot Process Automation for increasing efficiency and minimizing errors in repetitive tasks[288].

In addition, the European Council notes that AI systems in the justice sector may, in the future, be capable of performing increasingly complex tasks, such as analyzing, structuring and preparing information on the subject matter of cases, automatically transcribing records of oral hearings, offering machine translation, supporting the analysis and evaluation of legal documents and court/tribunal judgments, estimating the chances of success of a lawsuit, automatically anonymizing case law, and providing information via legal chatbots[289]. This naturally raises the question: *Could AI systems one day replace judges in their core function, i.e., decision-making?* Under the current European legal framework, the answer is *no*. The EU law explicitly classifies AI systems intended to support judges as high-risk, thereby ensuring that AI may only operate in an assistive capacity. In T. Sourdin's words, assistant 'co-bots' rather than replacement robot judges could play a more important role

[286] O. W. Holmes, Jr., 'The Path of the Law' (1897), *10 Harvard Law Review*, *Vol. 10*, No. 8, pp. 457-478.

[287] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019) pp. 286.

[288] European Commission, Directorate-General for Justice and Consumers, Study on the Use of Innovative Technologies in the Justice Field: Final Report, Publications Office, 2020, available at: <https://data.europa.eu/doi/10.2838/585101> accessed 7 June 2024.

[289] Council of the European Union Conclusions 'Access to Justice – Seizing the Opportunities of Digitalisation' 2020/C 342 I/01, OJ C 342I, 2020, pp. 1–7.

in the future[290]. Furthermore, J. Zeleznikow noted that while robots are unlikely to replace judges, automated tools are being developed to support legal decision making[291]. Even considering that AI has the potential to surpass judges in adjudication, AI systems complementing judicial work, including in the decision-making process, are more feasible in the near-future.

AI systems can support judges by making predictions in terms of the way a case should be solved, as well as by generating a draft judgement, based on those predictions. Accordingly, a human judge retains the discretion to have a final saying in terms of the decision and bears responsibility for that judgment. For example, Harvey suggests the following simplified description of AI, helping a judge in adjudication: there are databases that employ natural language processing to assist with the sourcing of relevant material based on search terms. The system would be required to go further than these databases, by reducing the returned sources to a manageable and relevant sample and then deploying tools to compare these sources of law to a present case and engaging in analysis to make a determination of the outcome. Harvey explains that this final step requires "the development of the necessary algorithms that could undertake the comparative and predictive analysis, together with a form of probability analysis to generate an outcome that would be useful and informative". However, the principle of human judge decision-making is largely retained in Harvey's model[292].

By combining the ability of predictive systems to identify certain patterns, influencing the projection and the ability to generate a decision on top of the predictions, in accordance to a specific case and based on the information input, AI assistants can serve judges in adjudication. A human judge could then use this draft (since many judges, especially in appeal courts, make use of drafts from their legal assistants anyway) to produce their own reasons for judgment. This use of AI would allow for human oversight over the computer program and enable discretionary or social considerations to be taken into account by the human judge that may be beyond the capacity, or

[290] T. Sourdin and R. Cornes, 'Do Judges Need to Be Human? The Implications of Technology for Responsive Judging'. In: T. Sourdin and A. Zariski (eds.), *The Responsive Judge* (2018), pp. 87–119.

[291] J. Zeleznikow, 'Can Artificial Intelligence and Online Dispute Resolution Enhance Efficiency and Effectiveness in Courts'. (2017) *International Journal for Court Administration*, *vol. 8*, No. 2, 30-45.

[292] T. Sourdin, 'Judge v Robot?: Artificial Intelligence and Judicial Decision-Making'. (2018) *The University of New South Wales Law Journal 41*, No. 4, pp. 1114-1133.

authority, of the computer program[293]. The reasons for using this kind of an AI system to support judges in drafting judgments in European courts are the following: first of all, it is in line with the European approach. As already discussed, the human oversight requirement is embedded in various soft law EU's documents, including, *inter alia*: *Ethics Guidelines for Trustworthy AI*[294], the communication *Building Trust in Human-Centric AI*[295], the *White Paper on AI* [296], the communication *Digitalisation of Justice in the EU: A Toolbox of Opportunities*[297], *Resolution on a Framework of Ethical Aspects of AI, Robotics and Related Technologies*[298], conclusions *Access to Justice – Seizing the Opportunities of Digitalisation*[299], *Guidelines on Online Dispute Resolution Mechanisms in Civil and Administrative Court Proceedings*[300] and other documents. The constant mentioning of the human oversight in these documents indicates targeted recommendation not to leave AI unattended in the activity of courts. Moreover, this idea is also supported in the 'first world's' first hard law on AI[301]. First of all, by identifying AI systems as high-

[293] T. Sourdin and R. Cornes, 'Do Judges Need to Be Human? The Implications of Technology for Responsive Judging'. In: T. Sourdin and A. Zariski (eds.), *The Responsive Judge* (2018), pp. 87–119.

[294] High-Level Expert Group on AI (2019), 'Ethics guidelines for trustworthy AI', Technical report, European Commission, Brussels.

[295] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Building Trust in Human-Centric Artificial Intelligence, COM/2019/168 final.

[296] European Commission White Paper on Artificial Intelligence – A European Approach to Excellence and Trust, COM(2020) 65 final. European Commission, Brussels, 2020.

[297] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union: A Toolbox of Opportunities, COM/2020/710 final, 2020.

[298] European Parliament Resolution of 20 October 2020 with Recommendations to the Commission on a Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies (2020/2012(INL)), OJ C 404, pp. 63–106.

[299] Council of the European Union Conclusions, 'Access to Justice – Seizing the Opportunities of Digitalisation' 2020/C 342 I/01 OJ C 342I, 14.10.2020, pp. 1–7.

[300] Online Dispute Resolution Mechanisms in Civil and Administrative Court Proceedings: Guidelines and Explanatory Memorandum Guidelines Adopted by the Committee of Ministers of the Council of Europe on 16 June 2021 and Explanatory Memorandum. Available at: <https://rm.coe.int/publication-guidelines-and-explanatory-memoreandum-odr-mechanisms-in-c/1680a4214e> accessed 17 September 2024.

[301] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013,

risk, if they are intended to assist a judicial authority in researching and interpreting facts and the law and in applying the law to a concrete set of facts, the initiatives to use AI in the courts are welcome, however, only for ancillary administrative activities and as AI assistants to judges. By tagging AI systems devised to support a judicial authority in its decision-making process as high-risk, EU law-makers implicitly but categorically rule out AI systems which could be used to replace, as opposed to *merely assist*, 'human' judges in resolving civil or criminal matters put before it[302]. This is explicitly confirmed in *Recital (61) of the EU AI Act*, which classifies as 'high-risk' any AI system intended to be used by or on behalf of a judicial authority to assist in researching and interpreting facts and the law, or in applying the law to concrete facts, by noting that while such tools can support judges, they must never replace the human-driven nature of the final judicial decision-making[303]. It should also be mentioned that the 'human-in-command' principle in this case, among other things, ensures that human judges ultimately bear the responsibility for the final decision, and helps to avoid the liability deficit[304]. To conclude, the potential for an AI system to support

(EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828, OJ L, 2024.

302 A. Olas, 'Looking beyond COVID-19 Pandemic: Does Artificial Intelligence have a Role to Play in Preparing the Justice System for the Next Global Pandemic or Similar Hardship? The European Perspective'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 249-276

303 Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), PE/24/2024/REV/1, OJ L, 2024/1689, 12.7.2024.

304 On the contrary to, for example, the use of automated administrative orders in Lithuania, see more: J. Paužaitė-Kulvinskienė and G. Strikaitė-Latušinskaja, 'Automated Administrative Order in the Context of the Code of Administrative Offences'. In: M. Doucy, M. Dreyfus, and N. Noupadia (eds.), *Changements démocratiques et électroniques dans l'action publique locale en Europe: REvolution ou E-volution? Democratic and Electronic Changes in Local Public Action in Europe: REvolution or E-volution?* (2022), pp. 387-405; J. Paužaitė-Kulvinskienė and G. Strikaitė-Latušinskaja, 'L'ordonnance administrative automatisée dans le contexte du Code des infractions administratives'. In: M. Doucy, M. Dreyfus, and N. Noupadia (eds.), *Changements démocratiques et électroniques dans l'action publique locale en Europe: REvolution ou E-volution? Democratic and Electronic Changes in Local Public Action in Europe: REvolution or E-volution?* (Kultura: Institut Francophone pour la Justice et la Démocratie,

judges in decision-making is in line with the European approach on the use of AI in courts. A critical point here is that the principle of human oversight ensures that judges would still maintain responsibility for the final decisions, which helps prevent accountability gaps and maintains public trust in the judiciary. Judges, and not AI systems, must retain full command over judicial decisions. This legal framework confirms that AI can only support, and *not replace*, judges, at least under the current EU law.

In addition, the promotion of AI system(s) to support judges in the decision-making process, rather to replace the judges, is in line with the constitutional prerogative of the courts to administer justice. For example, in Lithuania, it is enshrined in the act with the highest legal authority in Lithuania – the Constitution of the Republic of Lithuania[305]. The Constitutional Court, when interpreting Article 109(1) of the Constitution, has repeatedly emphasized that the administration of justice is the exclusive function of the courts, which determines the place of this branch of power within the system of state authorities, and that no other state institution or official may perform this function[306]. From this provision flows the duty of the courts to examine cases fairly and objectively, and to adopt reasoned and well-founded decisions[307]. The Court has further stressed that constitutional justice requires not merely a formal appearance of adjudication, but decisions that are substantively just[308]. Accordingly, any regulation that would deprive the courts of their capacity to deliver such judgments would contradict Article 109(1) and the principle of the rule of law[309]. Accordingly, maintaining human responsibility for judicial decisions is essential to preserving public trust in law. AI systems, when used as decision-support tools, may strengthen this function by enabling judges to adhere to *stare decisis* and apply precedents wherever needed, and also, they would be more aware of the emerging trends in the case-law, while ensuring that the exclusive constitutional competence to administer justice should remain with the courts.

2022), pp. 693-711; G. Strikaitė-Latušinskaja, 'Automatizuoti administraciniai nurodymai Lietuvoje', (2023), *125 Teisė*, pp. 145-160.

[305] Article 109 of the Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992-11-10, No. 220-0.

[306] Ruling of 23 January 2025, No. 6/2024 of the Constitutional Court of the Republic of Lithuania.

[307] Ruling of 19 May 2022, No. 8/2021 of the Constitutional Court of the Republic of Lithuania.

[308] Ruling of 23 January 2025, No. 6/2024 of the Constitutional Court of the Republic of Lithuania.

[309] Ruling of 15 March 2023, No. 8/2022 of the Constitutional Court of the Republic of Lithuania.

Nevertheless, while AI can support judges with various tasks, even the most sophisticated AI systems remain incapable of handling hard cases. At present, AI is more effective in dealing with easy cases, i.e., routine and straightforward legal matters that require minimal substantive assessment[310]. The distinction between easy and hard cases is therefore central to this dissertation's position. In routine matters, people expect a quick, efficient, and cheap process; whereas, on the other hand, when a judicial decision involves the substantive assessment of facts and conflict, people want to be seen and heard[311]. For example, in Lithuania, in 2021, 25 percent of all administrative cases, considered by the Supreme Administrative Court of Lithuania, were cases regarding the execution of sentences and the conditions of detention[312]. Usually, these cases are pretty straightforward: prisoners complain, for example, that they are kept in detention cells under conditions which do not meet the minimum standard for a personal living space in prison establishments, or that the requirements for privacy, lighting, heating and ventilation are not properly ensured. Then, the *Lithuanian Prison Service* provides documentation with regard the prison establishments specific conditions under which the person was being held during the contested period. After that, by checking and combining the information provided by both the applicant and the *Lithuanian Prison Service* and applying the relevant legal norms, the judge writes a decision. To conclude, every fourth case examined in the Supreme Administrative Court of Lithuania is homogeneous, as there is a limited number of imprisonment conditions to be appealed against. Similarly, in 2022, 55 percent of the cases considered by the Supreme Administrative Court of Lithuania were cases regarding the legal status and asylum of foreigners[313], and both in 2021 and 2022, cases regarding fiscal legal relations were relatively frequent (the majority of which were analogous cases of debt recovery applications for municipal waste collection and

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[310] See more on the distinction between easy and hard cases in this regard in G. Strikaitė-Latušinskaja, 'The Rule of Law and Technology in the Public Sector' (2023), *Access to Justice in Eastern Europe*, *No. 1*.

[311] J. Ulenaers, 'The Impact of Artificial Intelligence on the Right to a Fair Trial: Towards a Robot Judge?' (2020), *Asian Journal of Law and Economics*, *Vol. 11*, issue 2, pp. 1-38 (pp. 15).

[312] Overview of the Activities of the Supreme Administrative Court of Lithuania of 2021. Available at: <https://www.lvat.lt/doclib/or71pgrothce3kwe66a2a8qe4z4wqw5z> accessed 17 September 2024.

[313] Overview of the Activities of the Supreme Administrative Court of Lithuania of 2022. Available at: <https://www.lvat.lt/data/public/uploads/2023/03/metinis_2022-final-preview-2.pdf> accessed 17 September 2024.

management charges), yielding 10 and 18 percent of the total, respectively[314]. To sum up, there is a large number of straightforward and routine cases in Lithuania that could potentially be transferred to AI systems for assistance. Similar regularities could be identified in the court systems of other European countries as well. These examples illustrate how large volumes of homogeneous cases could be supported by AI tools, thereby freeing judges to focus on more demanding disputes.

By contrast, AI systems can only handle easy cases due to the lack of case law konwledge and other factors determining decision-making in hard cases. For example, machine learning is one of the most popular technologies used in predictive systems. Machine learning techniques are only useful where the analyzed information is similar to the new information presented to AI. Should an AI program be presented with a novel case where no similar precedent exists, it may not be well-suited to making a prediction or coming to an outcome. These issues may also arise where the sample size of previous cases is not sufficiently large for the computer program to discover patterns and create effective generalizations[315]. This limitation underscores why AI, in its current and foreseeable form, can enhance, but *not supersede* human adjudication.

To sum up, there is some potential to use AI systems to assist judges in preparing judgments, which is in line with the current European approach to preserve the human oversight in the adjudication process, which would contribute to avoiding accountability gaps and preserving public trust, as well as would be consistent with the courts' fundamental role in administering justice, preserving judicial authority, and maintaining public trust, as exemplified by the constitutional principles and the importance of human responsibility in decision-making. However, given their limited ability to handle complex cases, these systems should primarily focus on supporting judges in the easy cases. What concerns the use of AI to replace judges in adjudication, according to E. Volokh, if an AI program someday passes a Turing test, and its developers can then teach it to converse – and even present

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[314] Overview of the Activities of the Supreme Administrative Court of Lithuania of 2021. Available at: <https://www.lvat.lt/doclib/or71pgrothce3kwe66a2a8qe4z4wqw5z> accessed 17 September 2024; Overview of the Activities of the Supreme Administrative Court of Lithuania of 2022. Available at: <https://www.lvat.lt/data/public/uploads/2023/03/metinis_2022-final-preview-2.pdf> accessed 17 September 2024.

[315] H. Surden, 'Machine Learning and Law' (2014), *89 Washington Law Review 87*, pp. 87-115 (p. 105).

an extended persuasive argument, moreover, if the software can create persuasive opinions, capable of regularly winning opinion-writing competitions against human judges, we should, in principle, accept it as a judge[316]. Agreeing with V. Mizaras, and in light of the ECtHR interpretation of the Convention as a 'living instrument' that evolves alongside societal developments, we cannot entirely rule out the possibility of an autonomous E-Judge in the future. While still a work in progress, such a judge could potentially be tasked with resolving smaller, repetitive cases of a non-complex nature, i.e., cases characterized by clear outcomes and minimal evidentiary or interpretive challenges. Realizing this vision, however, would require society to approach AI with an open mind, while upholding rigorous legal and ethical standards[317].

Even though the current state-of-the-art AI and the discussed European approach in terms of using this technology in courts suggest that we should still be reserved in talking about autonomous application of AI in adjudication, in R. Susskind's words, lawyers, judges, and policy- makers should be both humbled and open-minded about as-yet-uninvented technologies[318]. A few considerations to bear in mind, supporting the idea that in the not-so-near future, we will have to decide not whether AI will be capable to replace judges in adjudication process, but whether we are comfortable with AI replacing judges in decision-making, will be discussed below.

Firstly, when considering the limits of the application of AI in courts, what is often underestimated is the so-called AI fallacy, i.e., the view that systems cannot replicate human lawyers and their judgement because they cannot, *inter alia*, exercise judgement or be empathetic. However, the problem with this point of view is thinking that the *only* way to get machines to outperform humans is to mimic human reasoning and the way humans work; however, the present-day AI systems operate not by copying human beings – actually, they take on the work in ways that are best-suited to their unique capabilities and not ours[319]. The second wave of AI have provided an answer to skeptic arguments, after hovering for a long time that AI could never replace a human, because it does not have and will never have the human qualities.

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316 E. Volokh, 'Chief Justice Robots' (2019) *68 Duke Law Journal*, pp. 1135-1192.

317 V. Mizaras, 'Artificial Intelligence and the Right to a Fair Trial' (ECHR, 31 January 2025), available at: <https://www.echr.coe.int/documents/d/echr/speech-20250131-mizaras-jy-eng> accessed on 5 May 2025.

318 R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

319 See more on AI fallacy in: R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

However, the new approach to reach the aimed result in the most feasible way, rather than to mimic human-beings, opened up new horizons in terms of the ways AI could be used. It is not to mention that there will be a third, as well as a fourth, wave of AI, promising even more sophisticated results, thus suggesting that AI could excel in judicial decision-making.

Secondly, as systems are improving and taking-over more and more tasks, which had previously been attributed to human abilities exclusively, also, as they, *inter alia*, are making more accurate predictions[320] and are better at playing chess[321], it is likely that technological intrusion we are comfortable with delegating tasks will change to a great extent. In this era of increasingly capable machines, then, it is not outrageous to expect at some stage, whether twenty or 100 years from now, that systems will outperform judges at their own game, by delivering reasoned judgments with explanations that will look and feel like the finest of human judgments but sourced through AI rather than the judicial 'wetware'[322]. As technology progresses, society's comfort with delegating tasks to AI will likely grow, and it is plausible that AI could deliver judgments even surpassing those of human judges.

To conclude, this evolution – i.e., AI systems analyzing facts, applying the law more effectively than humans, and even delivering reasoned judgments that would rival or surpass those written by flesh-and-blood judges – would challenge legal systems to undergo a significant revision. Decision-makers and stakeholders would need to reconsider the current boundaries of AI application in justice systems and potentially modify the existing legal framework in order to meet the demands of the emerging realities while safeguarding the enduring values and fundamental principles. While these claims remain speculative, they highlight that, in the long term, society may face not only the question of AI's capability, but also whether we are comfortable delegating adjudication to a non-human system.

Even in this hypothetical scenario, however, the distinction between easy and hard cases remains a valuable guide. If AI were ever entrusted with autonomous adjudicatory powers, it would most plausibly begin with smaller, repetitive, non-complex cases, those with clear legal outcomes and limited evidentiary disputes. Thus, the framework applied in this dissertation – by dividing the classification regarding AI into easy and hard cases – not only

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[320] For example, *Lex Machina* is deemed to make better predictions than lawyers, see more: <https://lexmachina.com/legal-analytics/> accessed 17 September 2024.

[321] For example, as early as in 1997, the incumbent world chess champion, Garry Kasparov, was beaten by the IBM's *Deep Blue* chess-playing expert system.

[322] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

justifies the current support-only model, but also provides a conceptual lens for future debates about the boundaries of AI adjudication.

2.2.2. Current Applications of Technologies in Judicial Decision-Making

According to J. Zeleznikow, the purpose of a decision support system is to help the user manage knowledge. A decision support system fulfils this purpose by enhancing the user's competence in representing and processing knowledge. It supplements human knowledge management skills with computer-based means for managing knowledge. A decision support system accepts, stores, uses, receives and presents knowledge pertinent to the decisions being made[323]. In the judicial context, these systems assist judges by retrieving legal precedents, structuring legal analysis, automating legal drafting, and streamlining the decision-making processes. While judicial adjudication has traditionally relied on human interpretation, legal reasoning, and discretion, technological advancements are increasingly reshaping adjudication by embedding automated tools into judicial workflows.

One particularly transformative application is predictive analytics, a subset of decision-support tools which employs machine learning algorithms to analyze legal data, identify patterns, and forecast case outcomes. Inspired by successes in fields such as medicine and game theory, predictive analytics has increasingly drawn attention in the legal profession as well[324]. The *European Ethical Charter on the Use of AI in Judicial Systems*, adopted by the CEPEJ, defines predictive justice as the analysis of large datasets of judicial decisions using AI to forecast case outcomes[325]. While predictive analytics has not yet been widely adopted in European courts, various research projects have already demonstrated its potential. In 2019, researchers from the University of Sheffield and the University of Pennsylvania developed an AI system capable of predicting ECtHR rulings with 79 percent accuracy by analyzing textual patterns in past judgments[326]. Similarly, a study by D. M.

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[323] J. Zeleznikow, 'An Australian Perspective on Research and Development Required for the Construction of Applied Legal Decision Support Systems' (2002) *Artificial Intelligence and Law*, *10*, pp. 237–260.

[324] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

[325] The European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment, Adopted by the CEPEJ during its 31st Plenary Meeting, Strasbourg, 3–4 December 2018.

[326] N. Aletras et al., 'Predicting Judicial Decisions of the European Court of Human Rights: A Natural Language Processing perspective', *PeerJ Computer Science 2*(2), pp. 1-19.

Katz et al. dating back to 2017 built a system that predicted U.S. Supreme Court case outcomes with an accuracy of 70.2 percent and the voting behavior of individual justices with 71.9 percent accuracy[327].

Beyond predictive models that forecast legal outcomes, legal analytics tools such as *Lex Machina* have further expanded the role of technology in judicial decision-making. Originally developed at Stanford University and later acquired by *LexisNexis*, *Lex Machina* does not focus on predicting case results, but rather on analyzing patterns in judicial behavior, litigation strategies, and legal trends. By processing millions of legal documents, it provides strategic insights into the tendencies of judges, opposing counsel, and case characteristics[328]. Unlike case-outcome prediction models, *Lex Machina* is used as a tactical resource for lawyers rather than a tool for judicial adjudication itself. These examples illustrate how AI-driven systems, by analyzing past rulings, are increasingly capable of generating prospective recommendations, helping legal professionals anticipate judicial trends, and structure their arguments accordingly.

As these technologies advance, their integration into judicial workflows could provide valuable decision-support functions for judges. AI systems could cluster and prioritize cases, assist in identifying the emerging trends in case law, and enhance consistency in judicial reasoning by recognizing the relevant precedents[329]. As the legal scholar O. W. Holmes Jr. famously observed, the law is the prophecies of what the courts will do[330]. In this sense, AI's ability to analyze past decisions and predict future rulings could contribute to the development of a more coherent and data-driven legal system. Moreover, as R. Susskind has suggested, it is conceivable that, in the future, judges may be regarded as negligent for not utilizing such advanced systems, much like doctors would be if they failed to consult MRI scans when diagnosing patients[331].

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[327] See more in: D. M. Katz, M. J. II Bommarito, and J. Blackman, 'A General Approach for Predicting the Behavior of the Supreme Court of the United States', (2017), *PLoS ONE 12*(4), online paper.

[328] Information retrieved from the *LexisNexis* webpage, available at: <https://www.lexisnexis.com/community/pressroom/b/news/posts/lexisnexis-accepting-applicants-for-fifth-cohort-of-legal-tech-accelerator> accessed 17 September 2024.

[329] J. Ulenaers, 'The Impact of Artificial Intelligence on the Right to a Fair Trial: Towards a Robot Judge?' (2020), *Asian Journal of Law and Economics*, *Vol. 11*, issue 2, pp. 1-38.

[330] O. W. Holmes, Jr., 'The Path of the Law' (1897), *10 Harvard Law Review*, *Vol. 10*, No. 8, pp. 457-478 (pp. 460-61).

[331] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

Beyond predictive analytics, several decision-support technologies are actively transforming judicial decision-making. Algorithmic risk assessment models, such as *COMPAS*, assist courts in bail determinations, sentencing, and parole considerations, raising concerns about bias, fairness, and transparency. *Prometea*, developed in Argentina, streamlines legal drafting, case classification, and precedent retrieval, thereby reducing the judicial workload but also prompting debates about the potential mechanization of legal reasoning. Meanwhile, China's *Smart Courts* integrates AI-assisted adjudication, digital case management, and sentencing standardization, thus representing one of the most extensive efforts to embed technology into judicial systems.

As these tools become deeply embedded in judicial workflows, they introduce both efficiency gains and legal uncertainties, shaping the way courts function and decisions are made. The following section critically examines their practical impact on judicial reasoning, discretion, and procedural fairness, by focusing on whether these technologies reinforce judicial consistency or risk compromising the fundamental legal principles. While their long-term effects on access to justice remain subject to an ongoing debate, their widespread adoption confirms that technological decision-support tools are no longer theoretical innovations – in the sense they are already actively transforming the judicial practice.

2.2.2.1. Algorithmic Risk Assessment in Judicial Systems

Among AI-driven decision-support tools, risk assessment algorithms play an increasingly significant role in criminal justice. While the use of predictive tools by judges in criminal trials remains rare in Europe, in the United States, 'pretrial risk assessment algorithms' are frequently consulted when setting bail, determining prison sentences, and contributing to decisions concerning guilt and innocence. These systems create a behavioral profile of the accused individual by mathematically analyzing various factors[332].

Although risk assessment tools like the *Correctional Offender Management Profiling for Alternative Sanctions* (*COMPAS*) are not strictly decision-support tools since they do not assist with legal reasoning, but instead provide statistical assessments for pretrial, sentencing, and parole decisions, their use raises similar concerns to those posed by the traditional decision-support systems. These tools influence judicial decision-making in ways that

[332] S. Greenstein, 'Preserving the Rule of Law in the Era of Artificial Intelligence (AI)' (2021), *Artificial Intelligence and Law 30*, pp. 291–323.

warrant further scrutiny, particularly regarding psychological biases and their impact on judicial values, which will be analyzed further in this chapter. The *COMPAS* system exemplifies this trend, by using different methodologies to predict recidivism and to assist judicial decision-making. However, their use has sparked debates over bias, fairness, and accountability.

The *COMPAS* system influences bail decisions, sentence durations, and parole considerations. Developed by *Equivant* (formerly *Northpointe Inc*.), *COMPAS* evaluates different factors from defendant questionnaires and criminal records to assess the recidivism risk. It considers both direct indicators (e.g., prior arrests, parole breaches) and indirect ones (e.g., upbringing, boredom frequency), assigning a risk score from '1' (low risk) to '10' (high risk). Judges may take these scores into account when determining pretrial detention.

However, several concerns have been raised regarding the use of *COMPAS*. First, as mentioned above, *COMPAS* was designed by a private company, and its algorithmic processes are protected under intellectual property rights. In *State of Wisconsin v. Loomis*, it was determined that the developer does not disclose how the risk scores are determined, or how the factors are weighted, as this is considered a trade secret[333]. As a result, neither the litigants nor the courts can fully assess the algorithm's accuracy, fairness, or potential biases.

Second, concerns have emerged about a racial bias in *COMPAS*. Studies have shown that the system is more likely to classify African American defendants as 'high risk', even when their actual recidivism rates do not support this classification. Conversely, white defendants were often rated as lower risk but reoffended at higher rates[334]. These findings suggest that *COMPAS* may reinforce racial disparities rather than mitigate them. As the CEPEJ has correctly pointed out, such tools can perpetuate existing inequalities in the criminal justice system, and end up ultimately legitimizing problematic policies rather than correcting them[335].

Third, while judges can theoretically disregard *COMPAS* recommendations, it remains unclear how often they do so, or how much weight they place on the software's assessments. This raises broader concerns

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[333] The Wisconsin Supreme Court, *State of Wisconsin v. Loomis*, 881 NW2d (2016).

[334] J. Dressel and H. Farid, 'The Accuracy, Fairness, and Limits of Predicting Recidivism' (2018), *Science Advances*, *4*(1), pp. 1-5.

[335] European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment, Adopted by CEPEJ during its 31st Plenary Meeting, Strasbourg, 3–4 December 2018.

about the judicial discretion and the extent to which AI-generated risk scores shape legal outcomes.

A pivotal case highlighting these concerns is *State v. Loomis*, where a defendant was sentenced to six years in prison and five years of extended supervision partly based on a *COMPAS* assessment. The Supreme Court of Wisconsin ruled that *COMPAS* is merely one tool among the many tools available to judges, and that courts are free to rely on certain aspects of the assessment while rejecting others. The court held that, if used properly and with awareness of its limitations, *COMPAS* does not violate a defendant's right to due process[336]. However, this ruling does not resolve the underlying issue of whether the use of such software aligns with the rule of law and the right to access to justice[337].

In 2018, the *European Ethical Charter on AI in Judicial Systems*[338] classified the use of risk assessment algorithms in criminal matters, including *COMPAS*, as a practice requiring extreme caution. The *Charter* acknowledged that AI can be beneficial in criminal justice when used to streamline information gathering for probation services, but warned that broader applications risk bias and conflicts with the fundamental legal principles.

Accordingly, a critical examination of how these technologies reshape the concept of access to justice is essential. While tools like *COMPAS* claim to enhance the judicial efficiency through risk assessment, their reliance on statistical correlations rather than legal reasoning challenges the foundational principles of fairness, transparency, and due process. The incorporation of predictive technologies into judicial decision-making not only alters the traditional legal processes but also raises pressing questions about the evolving nature of judicial discretion and accountability. These concerns underscore the urgent need for robust regulatory frameworks, judicial oversight, and ongoing scholarly inquiry into how technological advancements are redefining access to justice in the digital era.

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336 The Wisconsin Supreme Court, *State of Wisconsin v. Loomis*, 881 NW2d (2016).

337 See more about *COMPAS* and its compliance with the rule of law in G. Strikaitė-Latušinskaja, 'The Rule of Law and Technology in the Public Sector' (2023), *Access to justice in Eastern Europe 2023*, *No. 1*, pp. 1-14.

338 European Commission for the Efficiency of Justice (CEPEJ), 'European Ethical Charter on the Use of Artificial Intelligence (AI) in Judicial Systems and Their Environment' (Council of Europe, 2018), available at: <https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c> accessed 30 January 2025.

2.2.2.2. Decision-Support Systems in Judicial Practice

As technology-driven legal decision-support tools continue to reshape judicial processes, *Prometea* stands out as an early example of predictive automation applied in justice systems. Developed in Argentina by the University of Buenos Aires and the Public Prosecutor's Office of Buenos Aires to optimize judicial processes, it assists legal professionals by streamlining case classification, automating legal drafting, and retrieving relevant precedents. While it does not predict case outcomes in a statistical sense, *Prometea* accelerates decision-making by retrieving relevant past cases and suggesting solutions based on the legal precedent[339], thereby raising important questions about the judicial discretion and the risks of over-reliance on automated recommendations. As of 2020, it predicted case outcomes (e.g., housing, education, work rights) in under 20 seconds with a 96 percent success rate, thus significantly improving efficiency in courts and administrative bodies, including the *Inter-American Court of Human Rights* and the *Constitutional Court of Colombia*[340].

Prometea has been used since 2017 to automatically create draft judgments in 'simple' cases in administrative law, tax law, and misdemeanor cases. Trained on a dataset of judgments and legal opinions of the Public Prosecutor by using topic classification, *Prometea* identifies the characteristics of the case at hand and searches for earlier cases with identical or similar characteristics within a knowledge base[341]. *Prometea* retrieves the decision linked with the case with similar or identical characteristics, which is then used as an editable basis for the new draft judgment. Judges can refine this draft by referencing new case law or formulating additional arguments.

It has been claimed that *Prometea* ensures transparency and traceability by avoiding black-box algorithms, by providing an auditable explanation for each prediction[342]. In many cases in which *Prometea* has been used, the judge

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339 M. Van Der Haegen, 'Quantitative Legal Prediction: The Future of Dispute Resolution?'. In: J. De Bruyne and C. Vanleenhove (eds.), *Artificial Intelligence and the Law: A Belgian Perspective* (2021), pp. 73-99, p. 73.

340 J. G. Corvalán, 'Prometea: Artificial Intelligence to Transform Justice and Public Organizations' (2020) 6 *International Journal of Digital and Data Law*, available at: <https://court-management.in/paper-upload/78-Prometea.pdf> accessed 3 February 2025.

341 M. Van Der Haegen, 'Quantitative Legal Prediction: The Future of Dispute Resolution?'. In: J. De Bruyne and C. Vanleenhove (eds.), *Artificial Intelligence and the Law: A Belgian Perspective* (2021), pp. 73-99.

342 J. G. Corvalán, 'Prometea: Artificial Intelligence to Transform Justice and Public Organizations' (2020) 6 *International Journal of Digital and Data Law*, available

rubberstamped an automatically generated draft[343]. Although *Prometea* does not predict legal outcomes in the statistical sense, its ability to generate pre-drafted legal opinions risks shifting judicial decision-making from critical analysis to procedural automation.

Building on the growing reliance on AI-assisted legal decision-support tools, China's smart court system is driving the digital transformation of judicial processes, enhancing efficiency, accessibility, and redefining technology-assisted adjudication. The smart court system in China is a technological framework for managing the *People's Courts* and administering justice, while relying on advanced digital tools. As part of the national strategy for digitalising public administration, the system incorporates AI, big data, and, to some extent, the blockchain technology[344]. As early as in 2016, China's *National Informatization Development Strategy* emphasized the need to "enhance economic and social informatization levels" by "deepening e-governance, moving forward with the modernization of state governance" and advancing the construction of 'smart courts' to improve the informatization of all judicial stages, including "acceptance, trials, judgments, enforcement, and supervision", while promoting 'the openness of judicial and law enforcement information' and ensuring 'judicial fairness and justice'"[345]. Following these strategic objectives, China established its first Internet Courts – the *Hangzhou Internet Court* on August 18, 2017, the *Beijing Internet Court* on September 9, 2018, and the *Guangzhou Internet Court* on September 28, 2018[346]. These specialized courts were designed to handle internet-related disputes through fully digitalised litigation processes, thereby reinforcing the country's commitment to judicial informatization and transparency.

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at: <https://court-management.in/paper-upload/78-Prometea.pdf> accessed 3 February 2025.

343 M. Van Der Haegen, 'Quantitative Legal Prediction: The Future of Dispute Resolution?'. In: J. De Bruyne and C. Vanleenhove (eds.), *Artificial Intelligence and the Law: A Belgian Perspective* (2021), pp. 73-99, p. 73.

344 Q. Zhang, D. S. Dzhumaliev and J. Qi, 'Current State, Development and Peculiarities of Chinese Smart Courts' (2024), *Jus*, available at: <https://jus.vitaepensiero.it/news-papers-current-state-development-and-peculiarities-of-chinese-smart-courts-6474.html> accessed 5 February 2025.

345 State Council General Office, 'Outline of the National Informatization Development Strategy' (30 July 2016), available at: <https://chinacopyrightandmedia.wordpress.com/2016/07/27/outline-of-the-national-informatization-development-strategy/> accessed 5 February 2025.

346 Supreme People's Court, *Judicial Reform of Chinese Courts (2013–2018)* (China Daily, 2018), available at: <http://www.chinadaily.com.cn/specials/ChineseCourtJudicialReform2013-2018.pdf> accessed 5 February 2025.

China's smart court initiative has progressed from enhancing transparency and accessibility to fully integrating AI-assisted adjudication and digital case management, where AI tools support but do not replace judicial decision-making. In 2015, the *Supreme People's Court* (SPC) launched a series of initiatives aimed at making court services and case outcomes more accessible to litigants, lawyers, and the public. This led to the development of three key online platforms: *China Judicial Process Information Online*[347], which provides updates on case procedures, *China Judgments Online*[348], which publishes court judgments to promote transparency, and *China Judgments Enforcement Information Online*[349], which tracks the enforcement of judgments. These platforms laid the foundation for a more open and data-driven judicial system, enabling public access to legal decisions, facilitating empirical legal research, and, most importantly, serving as a reference for judges to ensure consistency in adjudication.

By systematically gathering and structuring vast amounts of judicial data, the 2015-dated platforms laid the groundwork for AI-driven analysis, allowing the year 2022 smart court system to evolve from passive information sharing to proactive decision-making assistance. The *2022 Online Operation Rules* of the *People's Courts* formalized a more advanced digital infrastructure, while including "the smart trial system, judicial data centre, and smart court brain", which "operates on the court special network or e-government network to provide online services for judicial personnel, such as case file review, archive retrieval, hearing, court trial, panel discussion and adjudication assistance, to support the construction of a modern trial system"[350]. The smart trial system now includes platforms for trial process management, electronic case file circulation and application, intelligent adjudication assistance, sentencing standardization and speech recognition in court hearing to enhance the judicial efficiency. By connecting with the judicial data centre and smart court brain, the smart trial system performs functions of smart assistance, including case data service, intelligent case

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[347] China Judicial Process Information Online, *China Judicial Process Information Online*, available at: <https://splcgk.court.gov.cn/gzfwww/> accessed 5 February 2025.

[348] Supreme People's Court, 'Judgements Online' (2020), available at: <https://wenshu.court.gov.cn/> accessed 5 February 2025.

[349] Supreme People's Court, 'China Judgments Enforcement Information Online', available at: <http://zxgk.court.gov.cn/> accessed 6 February 2025.

[350] Supreme People's Court, 'Online Operation Rules of the People's Courts' (adopted 30 December 2021, effective from 1 March 2022), available at: <https://cicc.court.gov.cn/html/1/219/199/201/2212.html> accessed 5 February 2025.

analysis, precise notification of referable cases, and assisted generation of documents.

By combining judicial data with AI-powered legal analysis, automated case notifications, and intelligent judgment drafting, China's courts are transitioning toward a digitally enhanced adjudication system which improves efficiency, reduces inconsistencies, and supports judicial decision-making. However, while intended as a judicial aid, such systems may subtly shape judicial reasoning by promoting reliance on AI-suggested precedents. By embedding AI-driven precedent analysis into judicial decision-making, the systems exemplify how automation may reinforce the already existing legal patterns while limiting judicial flexibility. Its implementation raises deeper questions about the effect on judicial discretion, which is worth analyzing.

The cases of *Prometea* and China's *Smart Courts* demonstrate how technology is not merely an auxiliary tool in the judicial practice but an active agent in reshaping adjudication processes. These systems, while improving efficiency and accessibility, also redefine the boundaries between human and automated decision-making. *Prometea*, by generating draft rulings, reduces the time required for legal reasoning but risks turning judicial analysis into a procedural task of refining pre-drafted conclusions. Similarly, China's *Smart Courts*, with their data-driven adjudication assistance and automated precedent analysis, introduces the potential for algorithmic standardization of judicial reasoning, thus subtly influencing the way how cases are decided.

Unlike risk assessment tools focusing on predicting human behavior, these decision-support systems operate by structuring and systematizing judicial reasoning. This shift raises a different set of concerns: rather than reinforcing biases in sentencing, these technologies may lead to a mechanization of legal reasoning, where judicial decisions increasingly rely on past patterns rather than on adaptive, context-sensitive deliberation. The challenge, therefore, is not only about ensuring fairness but also about preserving the dynamic and interpretative nature of legal decision-making in the face of increasing automation.

2.2.3. Assessing the Limitations of AI in Adjudication: The Divide Between Hard and Easy Cases

While AI has made significant advancements in legal decision-support, its capabilities remain far from absolute, even in a supportive role. A key distinction that helps navigate the appropriate application of AI in adjudication is the division between hard and easy cases. Easy cases, where legal norms are clear and unambiguous, present opportunities for AI to enhance the

efficiency, consistency, and procedural speed, whether operating autonomously or assisting human judges. In contrast, hard cases, which involve legal ambiguity, competing principles, or ethical dilemmas, highlight the inherent constraints of AI, even when used as a decision-support tool.

In easy cases, AI can contribute significantly by providing predictable, standardized solutions based on the previously established legal norms. As an autonomous system, it could handle routine disputes with minimal judicial intervention, by alleviating workloads and improving efficiency in legal processes. As a supportive tool, AI can assist judges by suggesting resolutions, retrieving relevant precedents, and ensuring consistency in legal reasoning – all while allowing human oversight to correct errors and maintain discretion.

However, in hard cases, even the most advanced AI systems face significant constraints. These cases require interpretative discretion, moral reasoning, and an understanding of the societal context, all of which go beyond AI's current capabilities. While AI can assist judges by organizing case materials, identifying precedents, and analyzing data trends, it lacks the ability to weigh competing legal principles, assess ethical concerns, or navigate complex legal indeterminacy. Ultimately, the resolution of such cases remains a fundamentally human task, as it is reliant on nuanced reasoning and legal judgment.

The distinction between hard and easy cases serves as a guiding framework for determining where the state-of-the-art AI can be most effectively applied in judicial settings. However, categorizing cases in this way is not merely a technological necessity; it it reflects deep-rooted jurisprudential debates about how judges reason through cases and make legal determinations. The following section examines the theoretical underpinnings of this dichotomy, by drawing on legal positivism and realism to explore the ways how judicial decision-making methods shape case resolution. This analysis will provide further insight into how AI's role in adjudication should be structured, while ensuring that technological advancements align with the fundamental principles of legal reasoning and judicial discretion.

2.2.4. Categorizing Cases into Hard Ones and Easy Ones

The computer has a syntax but no semantics. Thus, if you type into the computer "2 plus 2 equals?" it will type out "4." But it has no idea what "4" means 4 or that it means anything at all[351]

Understanding how judges make decisions is crucial for ensuring legal certainty and legitimate expectations, both of which are fundamental aspects to public trust in the judiciary. The analysis of court decisions serves not only private interests – such as those of the parties involved in litigation – but also the broader public interest, as judicial rulings shape legal precedents that influence society as a whole. Additionally, examining the factors behind judicial discretion and determining which decision-making methods are most appropriate for different types of cases benefits not only the litigants and the legal community, but also the judges and the courts themselves.

The long-standing mystique surrounding judicial reasoning makes this concern even more significant. Judges have long benefited from the secrecy of judicial deliberations, which serves as a form of professional mystification. They have convinced many, including themselves, they use esoteric materials and techniques to build selflessly an edifice of doctrines unmarred by wilfulness, politics, or ignorance[352]. This perception suggests that judges rely solely on legal texts, doctrines, and objective reasoning, detached from personal biases or external influences. However, judicial decision-making is more complex in practice. Despite claims of strict adherence to legal texts, judicial reasoning may be shaped by discretion, cognitive biases, or even misunderstandings.

As R. A. Posner delicately put it, this adherence to legal texts often acts as a 'fig leaf'[353], concealing the more complex and sometimes subjective nature of judicial decision-making, something that many judges prefer to maintain. While secrecy in deliberations serves a legitimate function, such as protecting judicial independence from external pressures, acknowledging the real-world influences on judicial reasoning is crucial for fostering greater transparency, accountability, and trust in the judiciary. The tension between the perceived objectivity of judicial reasoning and its real-world influences is evident in recent legal developments, such as France's unprecedented ban on research into individual judicial decision-making patterns in 2019. Analyzing,

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[351] J. R. Searle, 'Minds, Brains, and Programs' (1980), *Behavioral and Brain Sciences, 3*(3), pp. 417–424, (p. 423).

[352] R. A. Posner, *How Judges Think* (Harvard University Press, 2008), p. 3.

[353] R. A. Posner, *How Judges Think* (Harvard University Press, 2008).

comparing, or predicting the behavior of individual judges is now a criminal offense, punishable by up to five years in prison[354]. Such restrictions raise fundamental questions: *Why should judicial decision-making be exempt from scrutiny?* While concerns about judicial independence are valid, prohibiting such research may stifle valuable insights into the way(s) how judges reason, and how external influences shape their impartiality.

Instead of shielding judicial decision-making from examination, we should focus on helping judges cope with complexity because, *inter alia*, they need instruction in the cognitive abilities and psychological characteristics of judges, jurors, and witnesses, as well as instruction in avoiding fallacies in reasoning[355]. As Joseph C. Hutcheson Jr. argued as early as in 1929, legal education should extend beyond rigid, logical study; it should cultivate cognitive faculties that refine judicial reasoning, allowing judges to perceive justice beyond precedent and uncover hidden equities[356]. Shedding light on the psychological aspects of judging – without undermining judicial integrity – could provide valuable insights. Studies have shown that individuals who have received such training are more likely to scrutinize and critically assess legal arguments, which leads to more reflective and impartial decision-making[357].

One way to examine the structure of judicial reasoning is to categorize cases into hard and easy ones, which not only aids theoretical understanding of judicial reasoning, but also supports the proposal that judicial methodologies should differ depending on the complexity of a specific case. Before analyzing this hard/easy case dichotomy, it is of importance to recognize that the legal doctrine does not provide a single, uniform definition of these concepts. H. L. A. Hart in *The Concept of Law* describes hard cases as situations where rational and informed lawyers may disagree on the legally correct answer. According to Hart, the law is fundamentally incomplete, and, in hard cases, judges must make discretionary choices between competing legal principles, thus acting not as neutral interpreters but as quasi-legislators[358]. In contrast, Ronald Dworkin, representing a unified theory of

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354 Law No. 2019-222 of 23 March 2019 on the 2018–2022 Programming and Reform for Justice (France), Art 33.

355 R. A. Posner, *Reflections on Judging* (Harvard University Press, 2013), p. 346.

356 J. C. Hutcheson, Jr, 'Judgment Intuitive: The Function of the Hunch in Judicial Decision' (1929), *Cornell L Rev 274*, *14*(3).

357 D. Citron, '(Un)fairness of Risk Scores in Criminal Sentencing' (*Forbes*, 13 July 2016), available at: <https://www.forbes.com/sites/daniellecitron/2016/07/13/unfairness-of-risk-scores-in-criminal-sentencing/#7a2241044ad2> accessed 9 February 2025.

358 H. L. A. Hart, *The Concept of Law* (3rd edition, Clarendon Press, 1994), p. 275.

law, rejected Hart's notion of judicial discretion in hard cases. Dworkin argued that hard cases do not allow judges to create new legal rules, but rather require them to discover the correct legal answer by analyzing the rights of the parties and the underlying legal principles[359]. While the Hart-Dworkin debate remains central to legal philosophy, both perspectives underscore the same fundamental issue: hard cases introduce uncertainty in judicial reasoning, as they require judges to choose an interpretative approach and determine which legal norm applies.

The concept of hard cases is inherently abstract, requiring further analysis. The word *hard* is defined as difficult to understand or solve[360]. Linguistically speaking, the cases that require a great deal of effort from a judge to resolve them correctly are indeed 'hard'. In fact, another definition of the word 'hard' is simply the opposite of the word 'easy'. This is how the concept of hard cases will be explored further – as an opposite to easy ones. Some legal systems categorize cases based on the monetary value, for instance, Estonia's initiative to create a 'robot judge' for disputes under €7,000, or the online resolution of cases valued under £25,000 in England and Wales. However, linking the complexity of a case to a financial value under consideration is problematic: cases involving morality, religion, or constitutional rights may have low financial stakes but immense legal significance, while routine contract disputes involving hefty sums may be easily resolvable. As such, factors like monetary value, the number of parties involved, or the legal scope may indicate complexity, but they do not determine whether a case is truly hard or easy.

A more precise approach defines easy cases as those involving straightforward legal questions where the applicable norm is clear and unambiguous. Professor V. Mikelėnas supports this view, by arguing that if a legal norm is entirely clear, interpretation is unnecessary. In easy cases, judges do not engage in complex reasoning as the applicable law is self-evident, requiring no extensive deliberation[361]. Decisions in easy cases are controlled by existing law, as R. A. Posner explains[362], which makes them fundamentally

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[359] R. Dworkin, *Law's Empire* (Belknap Press, 1986); R. Dworkin, *Taking Rights Seriously* (Bloomsbury Publishing Plc, 2013).

[360] A. Stevenson, *Oxford Dictionary of English* (Oxford University Press, 2010), p. 799.

[361] D. Mikelėnienė and V. Mikelėnas, *Teismo procesas: teisės aiškinimo ir taikymo aspektai* (Justitia, 1999), p. 21.

[362] R. A. Posner, *The Problems of Jurisprudence* (Harvard University Press, 1990), p. 161.

different from the hard cases where no single clear solution exists. Hard cases are exceptional because they involve gaps or inconsistencies in legal norms, requiring judges to rely on interpretative methods, such as determining the legislative intent or applying legal principles.

Beyond defining hard and easy cases, it is of importance to examine why this categorization matters. First, hard case decisions require detailed legal reasoning because no single, clear solution exists. Judges must justify their reasoning convincingly, by explaining why a particular interpretative approach was chosen. In contrast, in easy cases, over-argumentation may be unnecessary or even counterproductive, as the applicable norm is self-evident. Over-explaining an obvious legal rule could even lead to unintended constraints on judicial interpretation in future cases.

Second, the role of the judge in decision-making depends on the case complexity. In easy cases, legal reasoning is often deductive, with a straightforward application of statutory norms or a precedent. A detailed interpretative analysis would be redundant and could even contradict the principle of legal effectiveness. In contrast, hard cases require significant judicial effort to reconcile the competing legal norms, principles, or ethical considerations. This distinction underscores why the methods of resolving cases proposed by legal positivism – such as syllogistic reasoning and analogy (precedent) – are well-suited for easy cases but often insufficient for hard cases.

Legal positivism emphasizes that judicial decisions should be based strictly on the already existing legal rules. In easy cases, syllogisms – by virtue of applying general rules to specific cases – help ensure efficiency, consistency, and legal clarity. Likewise, analogy and precedent play a crucial role in ensuring stability in case law, reducing unnecessary litigation, and promoting judicial uniformity across different instances of adjudication. By resolving easy cases through strict legal application, courts can free up their resources for more complex, discretionary cases that require deeper deliberation.

However, hard cases cannot be resolved through syllogistic reasoning alone. When judges have the discretion to choose between multiple interpretations, they are inevitably influenced by external factors, including psychological biases, sociological influences, and institutional pressures. Studies have shown that judicial decision-making is shaped by cognitive biases, such as overconfidence in intuition, gambler's fallacy, and the anchoring effect, as well as social dynamics, including personal relationships with the litigants, institutional culture, and gender-related perceptions. While these influences are often unconscious, they highlight the inherent subjectivity

involved in judicial reasoning, which is a reality that legal formalism often seeks to obscure.

A broader examination of these psychological and sociological influences – without discrediting the judiciary – could provide valuable insights into judicial behavior. Greater awareness of these factors would not only benefit judges themselves but would also increase public confidence in the transparency and fairness of judicial decisions. In this context, deeper empirical research into judicial reasoning is essential, and not as an attempt to undermine judicial discretion, but, instead, to help judges critically assess how different influences shape their decision-making processes.

Finally, understanding the division between hard and easy cases is crucial for refining judicial methodologies. As this analysis will demonstrate, while legal positivism provides a strong framework for easy cases, hard cases often require a more flexible, contextual approach, drawing on legal realism and principles-based reasoning. The following discussion will explore how psychological, institutional, and social factors influence judicial decision-making in complex cases, thereby further highlighting the distinctions between legal formalism and legal realism.

2.2.4.1. The Ways of Resolving Cases Proposed by Legal Positivism

A judge in a democratic mechanism does not have the right to be Shakespeare[363]

Art. 109 of the Constitution of the Republic of Lithuania enshrines that: "When considering cases, judges shall obey only the law"[364]. The positivistic approach to decision-making embedded *expressis verbis* raises the question of whether this decision-making approach is still sufficient in modern times.

A. Comte's positivist philosophy, which laid the foundations for the doctrine of legal positivism, sought to formulate new, clear, and precise principles of the social world, analogous to the laws of nature. As a result, the representatives of legal positivism sought to purify the law, separate it from values, and objectify it. In a much-simplified version of legal positivism, a judge's activity in interpreting the law and making decisions is considered an almost mechanical process in which the court's decision cannot be based on

[363] T. Berkmanas, 'Ar lingvistinis neapibrėžtumas užkerta kelią teisės viešpatavimo (rule of law) įsigalėjimui? [Does Linguistic Indefiniteness Prevent the Establishment of the Rule of Law?]' (2002) *International Journal of Baltic Law ol. 1*, *no. 1*, pp. 26-56 (p. 52).

[364] Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992, No. 220-0.

illegal arguments, political or social values, or the judge's opinion. The law perceived by the paradigm of legal positivism is a clear system of instructions of the legislator in which a rational, logically reasoned answer to practically any question of law can be found. Thus, there is no need for the judge to find a way to resolve the case on the basis of subjective non-judicial criteria – and the decision of the case for the positivist judge is dictated by the duty to find that single logical, obvious, and ultimately predictable solution.

The spirit of legal positivism is perfectly reflected in the provision entrenched in para. 3 of Art. 109 of the Constitution of the Republic of Lithuania, which states that, when considering cases, judges shall obey only the law[365]. It is in the law that the judge finds the right answer – by applying the pre-existing law. Legal positivism recognizes these ways of resolving cases as deduction and adherence to the principle of *stare decisis*, which is the essence of a court precedent. Firstly, both methods of resolving cases ensure the principle of legal certainty – in the sense that they are predictable. Secondly, both methods also find answers in law, which means that decisions are based exclusively on legal norms.

It is worth analyzing the criticism of the ways of resolving cases suggested by legal positivism. Some claim that the correct answer cannot be found by following the rules of formal, ambiguous logic alone. In each case, the answer is found only after a value decision has been made, that is, by applying certain evaluation criteria: fairness, reasonableness, equality, and other general principles of law. However, these values and principles are not sufficiently defined and clear, and therefore their content and application to specific life situations must also be interpreted[366]. The question arises as to whether it is really effective to insist on a value decision in a legal dispute that can be resolved with the help of a simple legal syllogism. Is it really necessary to apply the principles of justice, reasonableness, fairness, equality, and other general principles of law in each and every case? Given the axiom that justice delayed is justice denied, the essence of both the principles of efficiency and effectiveness, and the constant problem of judicial backlog, it can be argued that not all cases require a thorough legal assessment – as the fabula of some cases can be fitted into a mathematical formula and solved much more efficiently with the help of formal logic. Criticizing the analyzed approach to the activities of a judge, R. A. Posner points out that in this way, the law is treated as a set of data having no chronological dimension and the principles

[365] Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992, No. 220-0.

[366] D. Mikelėnienė and V. Mikelėnas, *Teismo procesas: teisės aiškinimo ir taikymo aspektai* (Justitia, 1999), p. 140.

themselves as timeless, like the propositions of Euclidean geometry. In this way, law is separated from life because a formal system, such as geometry, is a system of the relationship between ideas and not the relationship between ideas and physical reality[367]. Nevertheless, when assessing such criticism within the limits of pure legal positivism, it should be noted that a positivist judge does not create law – on the contrary, the judge interprets the law created by the legislator. The principle of the separation of powers is particularly prevalent in democratic countries; hence, it is the legislator that must deal with the discrepancy between the rules in force and the real life, and not the judges. The courts must respect the will of the legislator, presume that the legislator is rational and prudent, seek to identify its real objectives, and see whether the content deriving from the legal text is in line with those objectives and intentions. In summary, there should be a presumption that legal norms are relevant, and the correlation between the law and the actual legal relationship in easy cases must be followed and steered in the right direction by the legislator.

It is claimed that the approach of legal formalism (the model of extreme legal positivism) does not assess the difference between hard and easy cases but treats all cases as if they were easy. Accordingly, a judge's activity is limited in the field of interpretation of the law, without recognizing their choice or creative contribution in determining the meaning of the legal norm[368]. However, perhaps on the basis of this reason alone, the benefits of legal positivism in resolving court cases in general should not be underestimated. After all, the fact that the methods of resolving cases promoted by legal positivism are not sufficient for some cases does not *per se* presuppose the fact that these methods are completely unusable. After identifying the main features of easy cases, the rest of this chapter will seek to demonstrate that the methods of resolving cases proposed by legal positivism are not only sufficient but should also be deemed a priority – i.e., they should be considered the first option in easy cases.

2.2.4.1.1. Syllogisms as a Method for Resolving Cases

According to N. MacCormick, an easy case is one in which there is no dispute as to the relevant facts or the applicable law, and where the decision can, in

[367] R. A. Posner, *The Problems of Jurisprudence* (Harvard University Press, 1990), p. 16.

[368] R. Latvelė, *Teisėjo vaidmuo aiškinant teisę. Daktaro disertacija* [Role of the Judge in Interpreting Law. Doctoral Thesis] (Vilniaus universitetas, 2010), p. 49.

principle, be justified by deduction[369]. Syllogism, as one of the oldest and most popular kinds of logical argument that apply deductive reasoning, can be understood as a scheme consisting of a legal norm (the major premise), the factual circumstances of the case (the minor premise), and a deducted conclusion. For example, on the basis of syllogism, (certain) administrative offences (for example, speeding more than 10 km/h but not more than 20 km/h) may be subject to half the minimum penalty provided for in the relevant article (the major premise). Person X has committed an administrative offence referred to in the major premise (the minor premise); consequently, person X will be subject to half of the statutory minimum fine for the violation. This example was chosen to show that, by putting the routine and mechanical process of compiling an administrative order into a legal syllogism – starting with 1 January 2019 – certain amendments that introduced the automation of the administration order without any human intervention came into force in Lithuania[370].

When considering the application of syllogisms in the decision-making of judges, it should be emphasized that, in principle, when a judge is making decisions, a connection is established between the legal norms and the facts, which determines a certain conclusion. It is a mechanical, logical sequence of actions when moving from assumptions to conclusions. As J. Gumbis fairly points out, when a judge's decision is based solely on the applicable law, it is not the decision of an individual. It is a decision of the state that acts through that person – it is the exercise of power[371]. This model, also known in academic literature as the doctrine of mechanical justice, is based on the so-called static doctrine of legal interpretation, according to which a judge must always follow only the letter of the law and cannot interpret law *praeter legem* or *contra legem.* Consequently, a judge, even if he or she sees that the application of a certain legal norm may lead to a violation of legal principles (for example, proportionality, equality), he or she must apply such a norm anyway. Thus, legitimacy > proportionality, equality, etc. Such a conclusion is presupposed by the principle of separation of powers promoted by legal positivism – a positivist judge merely carries out the will of the legislator and must follow and apply it until the legislator (and not the court itself) has decided to change it.

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[369] N. MacCormick, *Legal Reasoning and Legal Theory* (Clarendon Press, 1978).

[370] Art. 611(4) of the Code of Administrative Offenses of the Republic of Lithuania, *Valstybės žinios*, 1999-02-03, No. 13-308.

[371] J. Gumbis, 'Teisės samprata: logikos taikymo problematika' [Concept of Law: Proposition of Application of Logic] (2010) *76 Teisė*, pp. 46-62 (p. 50).

Syllogisms as a means of resolving cases in the legal doctrine are often criticised for: 1) proving only the fairness of the thought process, rather than establishing the truth in the process[372], or 2) that, in such cases, the work of judges is more similar to the administration of justice rather than the execution[373], or 3) that the judge treats the law as a set of data without a chronological dimension and views the principles and norms of law as truths that are independent of changes in time or the environment[374]. However, the advantages of solving cases which the use of syllogisms provides – such as ensuring legal stability (judgments are based on norms that were agreed by the public), recognizing the authority of the legislature, and ensuring the principle of legal certainty – are essential for the sustainable existence of a sound legal system.

Legal doctrine states that a syllogistic approach in cases is necessary in order to protect legal certainty and stability, and to ensure the principle of the rule of law[375]. It is obvious that such regulation expresses respect for the legislative body and encourages the presumption of reliability and validity of the norms developed by the legislator. It also creates more legal certainty and predictability, as the conformity of court decisions with legal norms is visible. The principle of legal certainty is ensured because such decisions are easy to predict in the future. For example, a litigant expects that the judgment of the court will not be determined by any subjective factors, and that the judge will be objective and will apply the law properly. More generally, this means that the public wants to know what competence is given to a judge to act as a representative of the state power and to make a binding decision that affects individual freedoms and property, and that can be enforced by state coercion. The public wants a court decision to be a legitimate exercise of the state's power[376].

Consequently, the use of syllogisms helps to ensure the objectivity of judges and thus of the decision taken – the autonomy and objectivity of the law are secured by confining legal analysis to the formal level, requiring only an exploration of relations among legal ideas. Autonomy and objectivity are

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372 R. A. Posner, *The Problems of Jurisprudence* (Harvard University Press, 1990), p. 54-55.

373 J. Gumbis, 'Teisės samprata: logikos taikymo problematika' [Concept of Law: Proposition of Application of Logic] (2010) *76 Teisė*, pp. 46-62 (p. 51).

374 R. Latvelė, *Teisėjo vaidmuo aiškinant teisę. Daktaro disertacija* [Role of the Judge in Interpreting Law. Doctoral Thesis] (Vilniaus universitetas, 2010), p. 48.

375 R. Latvelė, *Teisėjo vaidmuo aiškinant teisę. Daktaro disertacija* [Role of the Judge in Interpreting Law. Doctoral Thesis] (Vilniaus universitetas, 2010), p. 40.

376 J. Gumbis, 'Teisės samprata: logikos taikymo problematika' [Concept of Law: Proposition of Application of Logic] (2010) *76 Teisė*, pp. 46-62 (p. 50).

threatened when the legal outcome depends on facts surrounding the world, which might be facts of a dispute or social or ethical facts relevant to creating or interpreting a rule[377]. It is believed that it was the closure of the system and the mechanization of dispute resolution that determined the success of *eBay* – one of the largest online auctions and e-commerce sites, resolving an average of 60 million consumer disputes a year through an online dispute resolution centre. Disputes over goods of poor quality, late delivery, or improper delivery through this platform are resolved remotely through alternative dispute resolution[378]. It was the limited possibilities of the cases and solutions that determined the efficiency and people's confidence in the system.

It is indisputable that legal syllogisms are difficult to apply in hard cases where several possible solutions compete and/or the solution proposed by the rules of reasoning is questionable from the point of view of common sense and/or justice. Hard cases are not usually resolved in accordance with the established formal legal rules, but they result in decisions that are atypical, extreme, and incompatible with the normal legal standards. They also usually provide for exceptions to the legal rules[379]. However, syllogisms are an excellent basis and a starting point from which judges should resolve cases, and, in easy cases, it should be deemed a sufficient and priority way to do that. The principle of separation of powers presupposes that the legislator is entrusted with a special legislative function, and so it should be reasonable to expect that the clearest, easiest model cases will be properly regulated by the legislators. It should be noted that the rule of law requires laws to be consistent, stable, and comprehensible.

Consequently, authoritative legislators have a constitutional obligation to ensure the adoption of such laws. In summary, a presumption seems reasonable that the least that can be expected from an authoritative legislator is the proper enactment of the most basic 'rules of the game' and, accordingly when noting that it would be manifestly incorrect to apply a rule which is appropriate to a clear, elementary ordinary legal dispute, such gaps in easy cases should be filled by the competent legislature and not by the courts. Advantages of the formal application of rules identified by J. Gumbis are as follows: rule makers are often in a better position to decide what is justice and how to achieve it in a particular case, and, in general, the legislature generally

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[377] R. A. Posner, *The Problems of Jurisprudence* (Harvard University Press, 1990), p. 40.

[378] For more information, see www.ebay.com

[379] G. Lastauskienė, 'Teisinis kvalifikavimas formaliosios logikos požiūriu' [Legal Qualification from the Point of View of Formal Logic] (2009), *73 Teisė*, pp. 38-54 (p. 51).

has more time to analyze problems and systematically consider more elements. It has more sources of information, and is not bound by gathering evidence and/or other procedural rules. Rules are often more effective than discretion because they essentially consolidate experience. A rule is a certain crystallized element formed by the lengthy process of how certain conflicts are to be resolved[380]. It is argued that, in easy cases, the judge would, in a sense, become an administrator of the law. Rather than insisting on seeking justice by deviating to various discourses, the principles of legal expediency and economy would be better ensured, the workload of courts would be significantly reduced, the law would be more predictable, and that would encourage greater public confidence in the judiciary. Perhaps, this would even reduce the number of cases in the courts in general, as individuals would be able to resolve disputes in easy cases themselves, and judges would be able to focus more on the (more) difficult cases.

2.2.4.1.2. Application of Analogy (Precedent)

We refer to a legal precedent as a decision of a state institution, usually a court, made in a specific case and later considered as an example in resolving similar cases. It can be understood as an authoritative opinion on how to resolve a problematic dispute. The application of precedents helps to ensure compliance with the *stare decisis* principle (i.e., similar cases must be dealt with in a similar way). Relying on precedents is a condition for uniform (consistent) case law, and thus for the full administration of justice. Therefore, the precedents of the courts cannot be unreasonably ignored when resolving similar cases[381].

The origin of court precedents is often linked to the medieval kingdom of England. The axiom is that, in the common law countries, where court precedent is recognized as the main source of law, whereas case law was the basis for the formation of the whole legal tradition. Precedent is of far greater importance than in the continental legal tradition. However, the institution of precedent is also extremely important for the states of the Romano-Germanic tradition. The Lithuanian legal doctrine notes that the dominance of court precedents as sources of law is a natural stage of legal development, which

[380] J. Gumbis, 'Teisės samprata: logikos taikymo problematika' [Concept of Law: Proposition of Application of Logic] (2010) *76 Teisė*, pp. 46-62 (p. 47).

[381] E. Kūris, 'Teismo precedentas kaip teisės šaltinis Lietuvoje: oficiali konstitucinė doktrina, teisinio mąstymo stereotipai ir kontrargumentai' (2009) *Jurisprudencija*, *2*(116), pp. 131-149 (p. 134).

each evolving legal system goes through[382]. For example, the doctrine of *stare decisis* prevailing in the Anglo-American legal tradition can be summarized in the following instructions: (1) the court is bound by the decisions of the higher courts, the courts of the highest levels (sometimes any level), and their own; (2) the decision of any other court in the present case is a compelling argument and must be considered; (3) the decision is binding only to the extent of its *ratio decidendi*; (4) a precedent does not automatically lose its binding force over time, but a very old one may be disapplied if it no longer meets the changed social relations. For example, in Lithuania, although the principle of *stare decisis* is not explicitly established, even without using this concept, a court decision is not considered to be a mere act of law, but an authoritative source of law, binding not only other courts dealing with similar cases but also the precedent-maker him/herself. Thus, court precedent is a source of law in both vertical and horizontal terms[383]. In Lithuania, the peculiarities of the institute of court precedent have mainly been developed by the Constitutional Court of the Republic of Lithuania, which states that the following factors are decisive (among other important factors) in ensuring the continuity of jurisprudence: courts of general jurisdiction of higher instance must, when reviewing decisions of courts of general jurisdiction of lower instance, always assess those decisions in accordance with the same legal criteria; those criteria must be clear and known *ex ante* to legal persons and, *inter alia*, to courts of general jurisdiction of a lower instance (hence, the jurisprudence of courts of general jurisdiction must be foreseeable)[384]. Subsequently, the duty of courts to formulate uniform case law allows precedent a special place in the legal system, regardless of whether the principle of *stare decisis* is explicitly enshrined or not. Such adherence to consistent case-law ensures the safeguarding of constitutional principles, such as the principle of equality – if similar cases were to be handled differently, or if different cases were to be treated equally, we would face unjustified unequal treatment of persons; the principles of legal certainty and legal predictability encourage clear precedents, and there should be no deviation from them without reason – this fosters legal clarity and predictability. In summary, in Lithuania, a country which does not belong to the Anglo-American legal tradition, the special place

[382] J. Machovenko, *Teisės istorija* [History of Law] (Vilniaus universiteto leidykla, 2013), pp. 98-99.

[383] E. Kūris, 'Teismo precedentas kaip teisės šaltinis Lietuvoje: oficiali konstitucinė doktrina, teisinio mąstymo stereotipai ir kontrargumentai' (2009) *Jurisprudencija*, *2*(116), pp. 131-149 (p. 135).

[384] See, for example, the ruling of 24 October 2007, No. 111-4549 and ruling of 28 March 2006, No. 36-1292 of the Constitutional Court of the Republic of Lithuania.

of precedent as a source of law is determined not by the explicit establishment of the *stare decisis* principle, but rather by such constitutional principles of law as equality, predictability of law, and legal certainty.

After describing the essential features of precedent, it is appropriate to discuss its applicability in easy cases. It should be noted that, in principle, the process of deciding on the application of precedent in a particular case can be divided into the following essential steps: identification of the precedent content, assessment of its suitability for the case, and the actual application[385]. It should be noted that the second and third steps are very similar in nature to the application of syllogisms in decision-making. For example, when we have a clear and appropriate precedent, we equate it with a certain legal norm. Such an approach is also supported in the legal doctrine, where it is stated that the *ratio decidendi* part of a court precedent can be understood as having a normative nature[386]. When equating the application of analogy by precedent to the application of legal syllogism, it can be concluded that this way of resolving a case, which reflects the ideas of legal positivism, should also be sufficient, and should be the main approach in easy cases.

The main advantages of applying analogy (precedent) in easy cases shall be analyzed below. First, the fact that, in similar situations, the court must decide cases in the same manner as in previous case law enables individuals to predict judicial outcomes, even when the relevant legal rule is not explicitly stated in legislation. In this way, as it was already mentioned, the principles of legal certainty and legitimate expectations are ensured. When similar situations are resolved in the same way, the court's decision by analogy makes its arguments more convincing to the parties, the judge is considered more objective, and his or her decision is determined by the application of obvious law, and not by non-legal factors, thus promoting greater public confidence in the judiciary. The application of precedents in easy cases is also in line with the principles of economy and efficiency of the process because of the following reasons: 1) The efficiency of court proceedings increases (it can be objectively perceived that the productivity of judges would be significantly reduced, whereas the workload would increase significantly if relevant decisions made in the past could not be relied upon) – it should also be mentioned that the consistent application of precedents in easy cases would

[385] There are a number of legal problems in the first step of applying precedent, but this discourse is not the subject of the present thesis. This paper presupposes the existence of criteria for relying on precedents, which can be used to identify the need to apply certain precedents in specific cases.

[386] R. Cross and J. W. Harris, *Precedent in English Law* (Oxford University Press, 1991), p. 72.

also reduce the workload of courts of appellate and cassation instances. 2) Clear and widely applied precedent rules are expected to lead to less litigation and encourage individuals to settle disputes out of court, the outcome of which can be easily predicted (this would, of course, also contribute to a lower workload of judges). In summary, the automatic application of precedent (analogy) in easy cases would give courts more time to focus on the hard(er) cases. Another particularly important argument is the duty of courts to shape the common practice. As mentioned above, when resolving a specific dispute, the court enforces not only the private interests of the parties to the proceedings but also the public interests, as the prerogative exercised by the judge to interpret legal norms in the form of judgments is duty-bound by the public.

It should be noted that this section does not analyze the problems of the application of precedent in difficult cases, such as, for example, competition between precedents or a situation where precedent is legally valid but does not reflect the existing relationship, since the aim was to defend the idea that the application of the analogy is a comprehensive and sufficient way of dealing with easy cases specifically. Summarizing the points outlined above, it can be stated that this hypothesis was defended on the grounds that not applying precedents in easy cases and re-establishing the compliance of the subject matter with the legal norms each time would be ineffective, and this would not guarantee the principles of legal expediency and economy. In addition, once the application of precedents in easy cases became common practice in the courts, greater predictability in court decisions would be seen, which would lead to greater public confidence in the courts and the judiciary (this would happen due to the perception that the decisions of such courts are objective and their adoption is not influenced by subjective factors) and encourage the search for a solution to such cases without turning to courts. As was emphasized, the principle of legal stability requires at least a minimum degree of predictability in how judges will decide a case. Therefore, we can argue that easy cases could constitute that minimum. The rule of law and respect for trustworthy authorities should presuppose respect for the laws they enact and a reasonable presumption that legal regulation in the clearest, simplest, easiest cases is legal and fair. In the event of a situation where such regulation does not correspond to the actual situation, the solution should not be to allow courts to be creative in easy cases, but rather to oblige the entity that created such regulation to ensure its relevance and the ‘vitality’ of the law.

2.2.4.2. Legal Realism and Hard Cases

In most cases, especially in the most important ones, the judge will stick to a reasonable result, rather than being able to come up with a result that is demonstratively and indisputably logically correct[387]

In the previous chaptwe, it was concluded that methods of legal reasoning, such as conclusions drawn with the help of syllogisms or reliance on precedents created in the past, are useful, sufficient, and even encouraged as the main approaches in easy cases. In complex disputes, in cases that require a wide judicial discretion to assess the facts, logic is of little help. It is a fiction that the court is guided only by the law, is impartial, and so on. However, the most important criteria for resolving such disputes are clearly not logical[388]. As it was correctly observed, the most important and constant reason for dissatisfaction with the law always stems from the necessary mechanical application of legal norms[389]. It should be noted that society also wants not only to restrict the freedom of a judge (so that he or she does not interfere in the field of legislation or become biased), but also to feel justice in general, rather than in the specific legal meaning of the word. The judgment must also be understood from a moral or ethical point of view. A judge in a given situation should not blindly follow the law, the adoption of which may have been influenced by lobbyists, but also argue on the basis of good morals, a general public understanding of what is right and wrong, honest, etc.[390]. In hard cases, because of their special importance and the legal relationship on the basis of which the dispute arises, factual legitimacy loses its relevance, and, more precisely, justice outweighs other principles of law. In the words of R. A. Posner, it is legal realism that helps to avoid this short-sighted justice[391].

O. W. Holmes Jr. gave us the aphorism that the essence of law is not logic but experience[392]. The ideas of legal realism are based on the notion that a judge must discover and, in some cases, even create the law. Divided into American and Scandinavian versions, legal realism is fundamentally at odds with the idea of legal positivism that law is comprehensive – judges

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387 R. A. Posner, *Reflections on Judging* (Harvard University Press, 2013), p. 6.

388 J. Gumbis, 'Teisės samprata: logikos taikymo problematika' [Concept of Law: Proposition of Application of Logic] (2010) *76 Teisė*, pp. 46-62 (p. 50).

389 M. Stone, 'Formalism' in J. L. Coleman and S. Shapiro (eds.), *The Oxford Handbook of Jurisprudence and Philosophy of Law* (2002), pp. 166–205.

390 S. J. Burton, *An Introduction to Law and Legal Reasoning* (Little, Brown & Co., 1985), pp. 167-183.

391 R. A. Posner, *Reflections on Judging* (Harvard University Press, 2013), p. 5.

392 O. W. Holmes, *The Common Law* (Little, Brown, and Co., 1881), p. 1.

supposedly make decisions based not on the law, but on what seems right to them, influenced by certain factors and incentives.

Legal positivism and the methods of resolving easy cases discussed before leave no room for the judge's discretion – when the right judgment of the case is obvious, so the judge is, in a sense, more like an administrator of the law, who simply attributes the appropriate norm to the legal dispute that has arisen. Meanwhile, in hard cases, it is more difficult to apply the right legal norm – the right solution is not so obvious, and the judge must choose what decision to make. In other words, the judge has discretion. Those with discretion are not entirely indifferent to the environment. This is not always negative – on the contrary, one of the purposes of discretion is to give the law flexibility so that the applicable law is not a mere blind norm[393]. It is those factors that can influence the judges' decision-making that will be further analyzed in this study, dividing them into the social factors researched by the representatives of American legal realism and the psychological factors researched by Scandinavian legal realism.

2.2.4.2.1. Psychological Factors That Determine Decision-Making

> *A judge uses his mind to rule the mind. So, it is not allowable for a judge's mind, from its earliest years, to be brought up in close contact with minds which are no good, or for it to have done a complete course in all forms of wrongdoing for itself, so that it can readily draw on its own experience in dealing with the wrongdoings of others*[394]

According to the representatives of Scandinavian realism, the personality and individual psychological characteristics of a judge are of special importance in their decision-making in cases. Cognitive psychologists have shown that even educated and intellectually refined individuals are prone to various cognitive biases, including *retrospective determinism* — a tendency to perceive past events or established facts as having been obvious all along, regardless of the lack of initial information to identify them. Such biases, in turn, may lead to incorrect statements and result in methodological problems during the interpretation stage (hindsight bias), as well as in cognitive distortions such as the anchoring effect and overconfidence in one's intuition.

These problems exist at all levels of the judiciary. For example, according to J. Frank, judges' decision-making is a factor in human psychology, so there

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[393] J. Gumbis, 'Teisės samprata: logikos taikymo problematika' [Concept of Law: Proposition of Application of Logic] (2010) *76 Teisė*, pp. 46-62 (p. 53).

[394] Plato, *The Republic* (Cambridge University Press, 2003), pp. 100-101.

is no point in developing any normative theory which would explain to judges how to make decisions[395]. K. Olivercona argued that the reality that legal scholars should study consists of the psychological reactions of individuals – the images and feelings they experience when they become familiar with a particular rule. Therefore, in order to perceive legal norms as effective, it is necessary to consider them as a psychological phenomenon[396].

Concerning psychological factors affecting specific judges, Ch. S. Hutcheson suggested that judges use intuitive decision-making (hunches) first, and only then use logical thinking to find a justification for the desired outcome[397]. Simple internal factors and reasons, such as laziness, unwillingness to take responsibility, or even a desire to avoid repetitive reasoning, also affect judges. In summary, when judges have discretion to make one decision or another, the decision-making process is influenced by a variety of psychological factors, such as over-reliance on intuition, the anchor effect, and such internal factors as, for example, laziness or unwillingness to take responsibility for the decision.

The gambler's fallacy is one of the logical errors arising from a misinterpretation of probabilities. It is an underestimation of the occurrence of random sequences. Hypothetically, if someone flips a coin landing heads up four times, most people will believe that the coin would land on the tails side next time, although, in reality, the probability is still 50/50. Empirical research has shown that the gambler's fallacy can be discovered when judging asylum cases. It was found that there is a 0.5 percent lower probability that a judge would make a positive decision to grant asylum to an applicant if the previous decision to grant asylum was positive rather than negative, despite all other circumstances being identical. Interestingly, a stronger negative autocorrelation was also observed between cases resolved on the same day. The closer the cases were to each other in time, the more consistent the occurrences of the gambler's fallacy were observed, as newer cases are more obvious and lead to stronger expectations for change[398].

Another psychological phenomenon affecting judges' decision-making is the anchor effect. Unlike hindsight bias, which distorts past events to fit a

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395 R. Latvelė, *Teisėjo vaidmuo aiškinant teisę. Daktaro disertacija* [Role of the Judge in Interpreting Law. Doctoral Thesis] (Vilniaus universitetas, 2010), p. 212.

396 J. W. Harris, *Legal Philosophies* (2nd edition, Butterworths, 1997), p. 106.

397 J. C. Hutcheson Jr., '*Judgment Intuitive: The Function of the Hunch in Judicial Decision*' (1929) *14 Cornell Law Journal*, *Rev. 274*, pp. 273-288.

398 D. L. Chen et al., 'Decision-Making Under the Gambler's Fallacy: Evidence from Asylum Judges, Loan Officers, and Baseball Umpires' (2016) *131 The Quarterly Journal of Economics*, pp. 1199-1205.

narrative of inevitability, or the gambler's fallacy, which misinterprets random sequences, the anchoring effect specifically influences how judges assess numerical values and sentencing outcomes by setting an initial cognitive reference point which subtly guides their decisions. In principle, the 'anchor' is understood as the starting point, on the basis of which, a decision is made in the future when information is lacking. Studies have shown that numeric decisions in law, such as damages or prison terms, are particularly susceptible to anchoring[399]. Judges' assessments have been influenced by various anchors, including damage caps, sentencing guidelines, prosecutorial recommendations, and probation officer reports[400]. For instance, in 2006, an experiment was carried out in which some of the participants in the investigation (prosecutors and judges) who were familiar with all the relevant material in the case had to imagine receiving a hypothetical call from a journalist asking whether the custodial sentence imposed on the defendant would exceed a certain length or be less. The duration of the custodial sentence in this case was the anchor. One study group was asked whether the sentence would exceed a period of one year and the other was enquired about a period of three years. Next, the study participants had to consider what answer they would give to their fellow investigators about the length of the prison sentence proposed by the journalist, i.e., whether the length of the prison sentence proposed by the journalist was appropriate, too long, or too short. The results obtained showed that the decisions of the study participants, regardless of their experience and competence, were influenced by the anchor provided: those who were suggested to impose three years in prison imposed an average of a 33.38-month sentence, whereas those who were given a one-year anchor imposed 25.43 months[401]. This suggests that even irrelevant or arbitrary numerical values can significantly influence judicial discretion.

While external anchors such as public criticism, media narratives, and sentencing guidelines have long been recognized as influencing judicial decision-making, anchoring also arises internally from past rulings or even subconscious cognitive patterns formed through repetition. As Jerome Frank

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[399] P. Bystranowski et al., 'Anchoring Effect in Legal Decision-Making: A Meta-Analysis' (2021) *Law and Human Behavior*, *45*(1), pp. 1–23

[400] J. J. Rachlinski, A. J. Wistrich, and C. Guthrie, 'Can Judges Make Reliable Numeric Judgments? Distorted Damages and Skewed Sentences' (2015) *90 Indiana Law Journal*, pp. 695–739.

[401] D. Petkevičiūtė-Barysienė et al., 'Inkaro efekto pasireiškimas skiriant laisvės atėmimo bausmę' [Manifestation of Anchor Effect when Delivering an Imprisonment Term] (2012) *11 Tarptautinis psichologijos žurnalas: biopsichologinis požiūris*, pp. 133-154 (p. 135).

has famously put it, judicial judgments in most cases are worked out backwards from conclusions tentatively formulated[402], rather than beginning with an entirely open mind. In summary, empirical research shows that when a judge has discretion in decision-making, their judgment is influenced not only by legal reasoning but also by cognitive biases such as hindsight bias, gambler's fallacy, and the anchoring effect, which may unconsciously shape case outcomes. In summary, when a judge has discretion as to what decision to make, empirical research shows that his or her decision is affected by psychological phenomena such as the gambler's fallacy or the anchor effect.

There is, of course, a risk that judges, influenced by various psychological factors, will make decisions by replacing public expectations with personal ones. Public expectations often stem from legal norms, societal standards, and the principles of justice as perceived by the community, whereas personal expectations are shaped by a judge's individual beliefs, experiences, and cognitive biases. The challenge lies in distinguishing between these influences and ensuring that judicial discretion remains aligned with legal principles rather than subjective predispositions. It is believed that judges often do not even understand that their decision-making process is influenced by various factors.

This is especially the case with psychological factors. Judges tend to think that they individualize each case, take into account all the relevant circumstances, and make the decision as objectively as possible. R. A. Posner suggested appointing more judges to reduce the impact of psychological factors on judges' decision-making, thus giving judges more time to consider each case[403]. But would judges really use that time for deliberations? And, after all, should judges' decisions be completely objective? When making a decision, a judge has the facts at his or her disposal (external factors) and the legal norms (internal factors). All a judge must do is establish the facts and apply a legal norm accordingly. Thus, the judge's activity when making a decision, is rather theoretical as there is no room for personal experience, rationality, or values. The work of a judge is *cognitive* when they establish the facts and *logical* when the judge applies certain legal norms[404]. However, cognitive biases such as hindsight bias, the anchoring effect, and overconfidence can unconsciously shape this reasoning process, thus

[402] J. Frank, *Law and the Modern Mind* (Coward-McCann, 1930), pp. 100–101.
[403] R. A. Posner, *Reflections on Judging* (Harvard University Press, 2013) pp. 312.
[404] J. Gumbis, 'Teisės samprata: logikos taikymo problematika' [Concept of Law: Proposition of Application of Logic] (2010) *76 Teisė*, pp. 46-62, (p. 48).

influencing both the establishment of facts and the interpretation of legal norms.

Recognizing these biases is crucial to understanding the limitations of purely rational judicial decision-making. However, in support of the statement that the methods of resolving cases proposed by legal positivism are not sufficient for resolving hard cases, we are also basically arguing that an objective decision based only on legal norms is legal but not fair in hard cases. Thus, we recognize a certain need for subjectivity in hard cases. The problem arises only when trying to determine how much of the influence of psychological factors should be allowed when resolving hard cases. In order to find the right answer, analysis of judges' activities without discrediting the work of those judges should be encouraged.

2.2.4.2.2. Sociological Factors Determining Decision-Making

Sociological factors also influence the decision-making of judges. Such factors have been widely studied by representatives of American realism. For example, B. Cardozo argued that the final form of a decision is given by the judge's life experience: a judge's understanding of the canons of justice and morality, his or her studies of the social sciences, sometimes intuition, conjecture, even ignorance or prejudice[405] may contribute to the verdict. After assessing the correlation between the social connection between persons and a more favorable decision for a close person, the principles of judicial impartiality were established. Article 6(1) of the ECHR states that, in the determination of his or her civil rights and obligations or of any criminal charge against him or her, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law[406]. For example, the Constitutional Court of the Republic of Lithuania has clarified that a person's constitutional right to have his or her case examined by an impartial court also means that a person's case may not be heard by a judge whose impartiality is in doubt. The judge hearing the case must be neutral. The impartiality of the judiciary, like the independence of the judiciary, is an essential guarantee of human rights and freedoms, a prerequisite for a fair trial, and thus a requirement for confidence in the judiciary[407]. In summary, the absence of influence of certain social relations

[405] B. N. Cardozo, *The Nature of the Judicial Process* (Yale University Press, 1921).
[406] European Convention for the Protection of Human Rights and Fundamental Freedoms of 3 September 1953.
[407] Ruling of 12 February 2001, No. 14-445 of the Constitutional Court of the Republic of Lithuania.

in the decision-making of judges is ensured with the help of the institute of removal of judges.

However, the decision-making of judges is also determined by other social factors, which, due to certain circumstances, cannot be measured and regulated by law. People differ by gender, age, education, origin, and religion, and these are the factors that may determine their decisions. For example, in cases of gender discrimination or equality, female judges tend to take a more liberal position[408]. Female judges also tend to punish those who have committed violent sexual offences more severely than their male counterparts[409]. Besides, each judge is a part of his or her nation, and all judges in a certain society live in the same environment, which affects each of them almost identically; thus, the decisions of judges are not determined by some mystical individualities of each case but can be predicted on the basis of general social regularities. Although, as in cases of influence of psychological factors, judges are often unaware of the social laws that influence decision-making, and, even if they are aware, they often do not recognize that influence, such laws do exist and may even be predictable. In principle, the law gives the judge the freedom to choose one of several ways to resolve the case, and the judge chooses a particular option under the influence of social factors.

Traditionally, the exercise of discretion is understood as a highly subjective decision driven by largely unexplained factors: success, emotion, or even whim. From a social point of view, decision-making can also be explained by less mystical actions. Decision-makers rely on their consciousness, presenting different conclusions depending on the social situation[410]. As mentioned, the social factors that determine the decision-making of judges form certain social laws, which, due to their low attractiveness, are not widely analyzed in the legal doctrine. Indirect empirical research shows that legal training or judicial experience does not produce a higher expert judgment. One of the reasons why judges do not make better decisions than ordinary subjects is that judging is poorly based on the environment; judges do not receive feedback on the quality of the decisions they make, and therefore judges do not improve their decision-making skills[411]. In hard cases, short-sighted justice, complete objectivity, and formal

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408 L. J. Siegel and J. L. Worrall, *Essentials of Criminal Justice* (Wadsworth, 2017).

409 K. O'Connor, *Gender and Women's Leadership: A Reference Handbook* (Vol. 2, Sage Publications Inc., 2010).

410 J. Gumbis, 'Teisinė diskrecija: socialinis požiūris' [Legal Discretion – Social Outlook] (2004) *52 Teisė*, pp. 52-61, (p. 56).

411 V. Tumonis, et al., 'Judicial Decision – Making from an Empirical Perspective' (2013) *Baltic Journal of Law & Politics*, *6*(1), pp. 140-162, (pp. 158).

application of rules are not the aspirations to be followed. In such cases, the public expects that judges will not formally apply the letter of the law but will seek justice and individualize the dispute. With this in mind, there is a need to examine the social factors that may influence a judge's decision-making. This would promote greater public confidence in the judiciary since social factors form laws, the examination of which in cases requiring the discretion of a judge would form tendencies of judgments made, and that would bring legal certainty. In this way, judges would also have a better understanding of themselves, and the functioning of the decision-making mechanism and would be able to assess the impact of certain factors that may have had an influence on the decision-making process.

3. THE EFFECT OF TECHNOLOGY ON ACCESS TO JUSTICE: RESHAPING THE TRADITIONAL PARADIGM

The integration of technology into judicial systems has transformed the way justice is accessed, delivered, and perceived. Courts worldwide are embracing digital solutions to streamline procedures, enhance efficiency, and reduce barriers to justice. From online case management systems to AI-assisted adjudication, these advancements are reshaping the very foundations of access to justice. However, as the judicial landscape evolves, critical questions arise: Do these technological changes genuinely enhance access to justice, or do they create new obstacles? Can digital tools maintain the core principles of fairness, impartiality, and transparency, or do they risk eroding the fundamental legal safeguards?

Traditionally, access to justice has been defined by physical courtrooms, in-person legal representation, and established procedural norms. The digitalisation of courts challenges this conventional model, introducing remote hearings, asynchronous case processing, automated legal decision-making, and AI-driven tools that assist – or even influence – judicial reasoning. These developments offer significant benefits, including an increased efficiency, reduced costs, and improved accessibility, particularly for those in remote areas or with limited mobility. At the same time, they introduce unprecedented challenges, such as algorithmic biases, concerns over judicial independence, and the risk of procedural rights being diminished in the name of technological progress.

This chapter critically examines how technology is reshaping access to justice by analyzing three key dimensions. First, it explores the conceptual foundations of access to justice, by establishing its role as a fundamental legal principle and examining how courts traditionally safeguard its core elements. Second, it assesses the evolution of access to justice in the digital era, by evaluating how innovations such as digital court systems, remote hearings, and AI-driven decision-making impact fairness and procedural rights. Finally, it considers the broader implications of technology for judicial independence, impartiality, and the right to an effective remedy, highlighting both the opportunities and risks associated with an increasing reliance on automation in judicial processes.

While technology has the potential to make justice systems more inclusive and efficient, it also carries the risk of dehumanizing legal processes and exacerbating existing inequalities. Therefore, a critical and balanced approach is essential to ensure that digital transformation in courts does not undermine the very principles it aims to protect. By examining the interplay between

technology and access to justice, this chapter seeks to provide a nuanced perspective on the opportunities and challenges of digitalisation in the judicial sphere.

3.1. The Concept of Access to Justice in Times of Digitalisation

> *The introduction of IT in courts in Europe should not compromise the human and symbolic faces of justice. If justice is perceived by the users as purely technical, without its real and fundamental function, it risks being dehumanised. Justice is and should remain humane as it primarily deals with people and their disputes*[412]

The digital revolution has transformed industries worldwide, and the justice system is no exception. As courts integrate technology, the very nature of access to justice is being redefined. The increasing reliance on digital tools in judicial systems has the potential to enhance efficiency, transparency, and accessibility. However, this transformation also raises critical questions about whether the core values of justice – fairness, impartiality, and public confidence – are being upheld.

To fully grasp the effects of technology on access to justice, this chapter delves into three critical dimensions. First, it explores the foundations of access to justice, establishing its role as a fundamental right and a key principle in democratic societies. Second, it assesses the evolution of access to justice in the digital era, by analyzing how technological advancements are reshaping legal procedures and interactions within the judicial system. Finally, it considers the transformation of the public hearing in the digital age, which is an integral part of the access to justice principle which has remained largely unchanged since its introduction but is now experiencing significant shifts due to digitalisation.

While technological advancements offer numerous opportunities to improve access to justice, they also bring about fundamental shifts that require careful evaluation. As courts increasingly integrate technology, it is crucial to assess whether these changes genuinely enhance access to justice, or, to the contrary, introduce new barriers. A continuous, critical examination of these

[412] Consultative Council of European Judges, Opinion No.14 of the Consultative Council of European Judges Justice and Information Technologies (IT), Adopted by the Consultative Council of European Judges at its 12th plenary meeting (Strasbourg, 7–9 November 2011), available at: <https://rm.coe.int/168074816b> accessed 30 January 2025.

developments is necessary to ensure that technological progress reinforces, rather than weakens, the foundational values of justice.

3.1.1. The Foundations of Access to Justice

Access to justice is a fundamental principle within the EU's area of freedom, security, and justice, as enshrined in the *Treaty on the Functioning of the EU*[413]. It is deeply intertwined with the rule of law and democratic governance, ensuring that individuals and businesses can seek and obtain legal redress. Recognized as a fundamental right in both international and European legal frameworks, access to justice serves as a key indicator of the effectiveness and fairness of a legal system. However, as R. Susskind highlights, for more than two decades, it has been fashionable among policymakers, consumer campaigners, law reformers, and commentators to discuss an increasing access to justice. While no one denies its importance, what this actually requires in practice remains unclear[414].

A comprehensive understanding of access to justice requires an examination of its multi-layered nature. This section provides a foundation for evaluating how courts can uphold the core tenets of access to justice within the constraints of finite resources. With judicial systems balancing personnel, infrastructure, and case management, efficient resource allocation is crucial to maintaining fairness and accessibility.

The FRA suggests the following division of the principle: a right to (1) a fair and public hearing by an independent and impartial court; (2) receive legal advice, be represented, and defended during a case; (3) legal aid if a victim cannot represent themselves in court and cannot afford a lawyer; (4) have a case decided within a reasonable time and obtain an adequate remedy[415]. However, in order to better reflect the notion of access to justice in the context of technology use in courts, this study adopts the division proposed in the *Handbook on European Law Relating to Access to Justice*[416], prepared by the

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413 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union: A Toolbox of Opportunities, COM/2020/710 final, 2020.

414 R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019).

415 European Union Agency for Fundamental Rights, Access to Justice in Europe, Factsheet, available at: <https://fra.europa.eu/sites/default/files/fra_uploads/1506-FRA-Factsheet_AccesstoJusticeEN.pdf> accessed 30 January 2025.

416 FRA and CoE, *Handbook on European Law Relating to Access to Justice* (Publications Office, 2016).

FRA and the CoE. Two key elements of access to justice will be distinguished: the right to a fair trial and the right to an effective remedy. Then, the requirements for ensuring a fair trial – such as judicial independence and impartiality, a fair and public hearing, access to legal aid, and the right to legal representation – will be examined. Finally, limitations on access to justice will be analyzed in order to provide a more comprehensive picture of the principle.

The rule of law is a cornerstone of the EU, as articulated in Article 2 of the *Treaty on the EU*, which states that the Union is founded on values including respect for human dignity, democracy, equality, and the rule of law[417]. This principle is of paramount importance because it underpins the European legal order, by ensuring that legal systems operate fairly and equitably. Furthermore, breaches of the rule of law in one Member State may have ripple effects across the entire Union, which highlights the need for robust legal protections.

Despite its fundamental status, the rule of law lacks a universally agreed definition, with its meaning varying across legal systems and contexts. In fact, it is getting harder and harder to define it as the phrase is being used in many different ways. Over time, its definition has become increasingly ambiguous due to its broad and varied use. But, without a clear definition, the rule of law is in danger of coming to mean virtually everything, so that it may in fact come to mean nothing at all[418]. The *World Justice Project*, however, offers a widely accepted framework comprising four universal principles:

1. Accountability of government and private actors under the law;
2. Clarity, publicity, and stability of the law, with protections for human rights, property, and contracts;
3. Accessible, fair, and efficient legal processes;
4. Timely and impartial delivery of justice by competent representatives with adequate resources[419].

The OECD identifies the same four elements when describing the rule of law[420]. Access to justice is an essential component of the rule of law, as it enables individuals to resolve disputes and enforce their rights. The UN' Declaration on the Rule of Law at the National and International Levels

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417 Treaty on the Functioning of the European Union, OJ 2012 C 326.

418 R. Stein, 'Rule of Law: What Does It Mean' (2009) *Minnesota Journal of International Law 250*, pp. 293-303.

419 The World Justice Project Rule of Law Index 2023 (World Justice Project, 2023), available at: <https://worldjusticeproject.org/rule-of-law-index/downloads/WJPIndex2023.pdf> accessed 30 January 2025.

420 See, for example, *OECD Government at a Glance 2021* (OECD Publishing, 2021); *OECD Government at a Glance 2019* (OECD Publishing 2019).

underscores this by emphasizing the right to equal access to justice and committing to transparent and effective legal services[421]. Without accessible legal mechanisms, the rule of law is undermined, which leads to discrimination, accountability gaps, and weakened democratic institutions.

Access to justice enables individuals and businesses to resolve legal disputes through judicial services, legal representation, and alternative dispute resolution mechanisms. This right also entails legal empowerment, ensuring that people can meaningfully engage with the justice system and understand their rights[422].

As a foundational element of the Western legal traditions[423], access to justice is both a process and a goal. It is essential for enabling individuals to exercise their legal rights and obtain remedies when those rights are/ have been violated. By virtue of recognizing its importance, international and European legal frameworks have enshrined access to justice as a fundamental right. At the international level, the Universal Declaration of Human Rights[424] (Article 8) and the International Covenant on Civil and Political Rights[425] (Article 2(3) and Article 14) establish protections for effective legal remedies and fair trials. Moreover, sector-specific agreements, such as the *Aarhus Convention on Environmental Justice*[426] and the *Convention on the Rights of Persons with Disabilities*[427], reinforce the necessity of accessible legal systems for all individuals, including vulnerable groups.

In the European legal framework, the ECHR[428] (Article 6) guarantees the right to a fair trial, while Article 13 ensures the right to an effective remedy. Similarly, the *Charter of Fundamental Rights of the EU*[429] (Article 47) enshrines these rights, while extending protections beyond those offered by the Convention. Importantly, the Charter ensures that access to justice applies

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421 Declaration of the High-Level Meeting of the General Assembly on the Rule of Law at the National and International Levels of 30 November 2012.

422 OECD, *Equal Access to Justice for Inclusive Growth: Putting People at the Centre* (OECD Publishing, 2019); OECD, *Government at a Glance 2021* (OECD Publishing, 2021).

423 Opinion of Advocate General Ruiz-Jarabo Colomer, CJEU, Roda Golf & Beach Resort SL, C-14/08, Delivered on 5 March 2009, para. 29.

424 *Universal Declaration of Human Rights* of 10 December 1948.

425 *International Covenant on Civil and Political Rights* of 16 December 1966.

426 *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters* of 25 June 1998.

427 United Nations. (2006). Convention on the Rights of Persons with Disabilities. *Treaty Series*, *2515*, 3.

428 *European Convention for the Protection of Human Rights and Fundamental Freedoms* of 3 September 1953.

429 *Charter of Fundamental Rights of the European Union*, OJ 2012 C 326.

to all rights under the EU law, thereby reinforcing the principle's comprehensive scope.

Although access to justice is recognized as a fundamental right, its practical implementation varies across Member States. Courts must ensure that individuals can effectively present their cases, obtain fair hearings, and receive remedies when their rights are violated. For instance, differences in legal aid funding, procedural efficiency, and digital accessibility of court services create disparities in how access to justice is realized across jurisdictions.

To conclude, access to justice guarantees that individuals can seek redress before an authoritative dispute resolution body and obtain a remedy when their rights are violated. Under the EU law, this protection is reinforced through two fundamental human rights: the right to a fair trial, and the right to an effective remedy.

3.1.2. The Evolution of Access to Justice in the Digital Era

> *The introduction of IT in courts in Europe should not compromise the human and symbolic faces of justice. If justice is perceived by the users as purely technical, without its real and fundamental function, it risks being dehumanised. Justice is and should remain humane as it primarily deals with people and their disputes*[430]

More people in the world now have access to the internet than access to justice. According to the OECD, only 46 percent of human beings live under the protection of the law, whereas more than 50 percent of people are now active users of the internet in one way or another. Annually, one billion people require basic justice care, but, in many countries, close to 30 percent of individuals facing legal problems do not take action[431]. Courts are generally too slow and costly to access, and the backlog of court cases calls for a transformation that technology can bring to judicial systems.

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[430] Consultative Council of European Judges, Opinion No. 14 of the Consultative Council of European Judges Justice and Information Technologies (IT), Adopted by the Consultative Council of European Judges at its 12th plenary meeting (Strasbourg, 7–9 November 2011), available at: <https://rm.coe.int/168074816b> accessed 30 January 2025.

[431] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019) 27.

As previously examined, various European institutions recognize the benefits of digitalisation in improving access to justice[432] and enhancing the efficiency of the single market[433]. The integration of digital technologies into judicial systems has the potential to increase efficiency by reducing administrative burdens, shortening case processing times, securing communication, and partially automating case handling[434]. For example, the European Commission noted that, by improving access to justice, digitalisation will also help to strengthen the rule of law in the EU[435]. Moreover, it encourages making access to justice an integral part of *Europe's Digital Decade*[436], whereas, the capacity to accompany states and courts in a successful transition towards digitalisation of justice is the priority of the institution for the next four years[437]. Technology enhances transparency and accessibility while promising faster, cheaper, and higher-quality court services.

As explored in Chapter Two, courts worldwide are undergoing significant technological transformation. However, while these advancements reshape court operations, their impact on access to justice remains uncertain, thereby presenting new challenges for this fundamental principle. Access to justice is a crucial principle in democratic states, a prerequisite for the rule of law, and a central objective of the EU's area of freedom, security, and justice.

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[432] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions Europe's Moment: Repair and Prepare for the Next Generation COM/2020/456 final.

[433] E-Justice European Parliament Resolution of 18 December 2008 with Recommendations to the Commission on e-Justice (2008/2125(INI)) Annex OJ C 45E, 23.2.2010, p. 63–70.

[434] Proposal for a Regulation of the European Parliament and of the Council on the Digitalisation of Judicial Cooperation and Access to Justice in Cross-Border Civil, Commercial and Criminal Matters, and Amending Certain Acts in the Field of Judicial Cooperation COM/2021/759 final.

[435] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union: A Toolbox of Opportunities, COM/2020/710 final, 2020.

[436] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union: A Toolbox of Opportunities, COM/2020/710 final, 2020.

[437] 2022–2025 CEPEJ Action Plan: 'Digitalisation for a Better Justice'. Adopted at the 37th CEPEJ plenary meeting, available at: <https://rm.coe.int/cepej-2021-12-en-cepej-action-plan-2022-2025-digitalisation-justice/1680a4cf2c> accessed 30 January 2025.

The European Commission stresses the need to preserve and adapt access to justice amid the ongoing digital transformation[438]. Given its fundamental role in judicial operations, access to justice is the most affected principle when evaluating the impact of new technologies in courts. Therefore, it serves as the primary lens through which these technological advancements should be assessed. In times of rapid technological change, maintaining access to justice ensures that the integration of technology aligns with the fundamental rights and does not reduce them to mere theoretical promises.

Having explored the concept of access to justice and the modernization of courts, particularly in Lithuania, this study now turns to the interplay between these elements. The objective is to assess how technology impacts the fundamental human right of access to justice and to anticipate the challenges posed by not-yet-invented tools.

Technology evolves rapidly, while incorporating aspects of internationalization and globalization, and yet the traditional law often lags in responding to these developments and remains predominantly confined to national jurisdictions[439]. Given that technological advancements are not limited by national borders, national laws alone are insufficient to address global legal challenges. However, while the rule of law is primarily applied within national legal frameworks, it is also recognized as a fundamental international principle. In conclusion, the rule of law is a key metric for assessing the impact of technological advancements in the public sector due to the following reasons:

1. It is a fundamental principle, based on which, the EU is founded;
2. Citizens in every Member State strongly support the rule of law principles;
3. As technology is developing very quickly, the law is lagging behind, and thus the rule of law is a good threshold which shows how well human rights are ensured;
4. The mechanisms proposed by national law alone are not sufficient to address global issues caused by the use of technology[440].

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[438] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union: A Toolbox of Opportunities, COM/2020/710 final, 2020.

[439] S. Greenstein, 'Preserving the Rule of Law in the Era of Artificial Intelligence (AI)' (2022) *Artificial Intelligence and Law*, *30*, pp. 291–323.

[440] See more in G. Strikaitė-Latušinskaja, 'The Rule of Law and Technology in the Public Sector' (2023) *Access to Justice in Eastern Europe*, *No. 1*, pp. 1-14.

The European Commission stresses that a vibrant and forward-looking EU, transitioning to a greener, more digital, and socially just society, must continue to be built on solid legal principles[441].

While the rule of law provides a broad framework for evaluating the impact of technology on governance and legal systems, it encompasses various elements that extend beyond the judiciary, such as democratic accountability and legislative oversight. Since this study specifically focuses on technology in courts, access to justice – being the aspect of the rule of law most directly connected to judicial processes – is the most suitable benchmark for assessing technological advancements in this domain. By centring on access to justice, this study ensures a precise and relevant evaluation of how digitalisation affects the ability of individuals to seek and obtain legal redress within judicial systems.

Different kinds of technology introduce distinct risks and shape access to justice in different ways. While some technological innovations enhance access to justice by increasing efficiency, reducing costs, and improving transparency, others pose new risks, such as concerns about fairness, reliability, and accessibility. The implications of each technological development must be carefully assessed in order to ensure that they contribute positively to the justice system without undermining the fundamental rights.

In conclusion, while digitalisation brings new opportunities for efficiency, transparency, and accessibility in the justice system, it also introduces risks that must be carefully managed. The impact of technology on courts is twofold: it can enhance efficiency and accessibility while also posing risks to fairness, procedural safeguards, and legal remedies. According to the European Commission, by improving access to justice, digitalisation will also help to strengthen the rule of law in the EU[442]. As digital transformation reshapes judicial systems, safeguarding access to justice, which is a fundamental principle of democratic societies, becomes ever more critical. Ongoing critical evaluation is necessary in order to ensure that digitalisation strengthens rather than undermines the core values of justice.

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[441] European Commission Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Region 'Rule of Law Report 2022', COM(2022) 500 final.

[442] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union: A Toolbox of Opportunities, COM/2020/710 final, 2020.

3.1.3. The Evolution of the Public Hearing in the Digital Age

The right to a fair and public hearing stems from the principle of access to justice and is *expressis verbis* enshrined both in the *Universal Declaration of Human Rights*[443] and in the *Charter of Fundamental Rights of the EU*[444], as well as in Article 117(1) of the *Constitution of the Republic of Lithuania*[445]. In the legal doctrine, the publicity of court proceedings is understood in two ways. In the narrow sense, it refers to the right of the parties and other participants to attend and engage in the proceedings and to access all relevant materials. Whereas, in the broader sense, it encompasses the public's right to be present, informed, and able to report on the conduct of judicial proceedings[446]. This broader function of publicity ensures transparency, reinforces public trust in the judiciary, and improves the quality of legal reasoning. As legal scholars have noted, it not only protects litigants against the arbitrariness of state power but also promotes higher-quality performance by judges and lawyers and serves an important civic and educational role[447]. It guarantees that court proceedings, and specifically the hearing on the merits, are open to the public, while ensuring transparency, accountability, and public trust in the judiciary. This principle applies to the hearing itself, the accessibility of case materials, and the public pronouncement of judgments. However, it does not extend to other procedural stages such as the initiation of proceedings, procedural decisions, or deliberations.

Importantly, as emphasized by the Constitutional Court of the Republic of Lithuania, the principle of publicity is not an end in itself but, actually, a

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[443] Article 6(1), with specific safeguards for a fair trial in criminal proceedings additionally found in Article 6(2) and 6(3).

[444] Article 47 with specific safeguards for a fair trial in criminal proceedings additionally found in Article 48.

[445] Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992, No. 220-0.

[446] See more in *Lietuvos Respublikos civilinio kodekso komentaras. I dalis: Bendrosios nuostatos* [Commentary on the Civil Code of the Republic of Lithuania. Part I: General Provisions] (Justitia 2001).

[447] See, for example, M. Jabłoński and A. Kraczkowski, 'The COVID-19 Pandemic and the Exercise of the Right to a Fair Trial in View of the Right of a Party to Present Case on the Court Hearing – Differences in the Approach of Courts in Civil and Judicial-Administrative Matters'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 453–464; M. Dziurda and P. Grzegorczyk, 'The Influence of COVID-19 Pandemic on the Polish Civil Proceedings from the Perspective of the Supreme Court'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 85–114.

key condition for the administration of justice. Public hearings are intended to ensure the implementation of rights enshrined in the Constitution and legal acts, uphold the rule of law, and protect individual freedoms. The legislator, in regulating court proceedings, must create conditions that would allow the parties involved and the public to know about the cases being heard, the composition of the court, the disputes at issue, and the decisions adopted. These requirements must be fulfilled while respecting other constitutional principles, such as legal certainty, justice, and proportionality[448]. This constitutional interpretation confirms that the principle of publicity serves broader systemic goals, such as trust, transparency, and the integrity of the legal system, and must be preserved and meaningfully adapted, including in the digital context. In this light, evolving practices such as written and remote hearings must be evaluated not only in light of their practical efficiency, but also regarding their compliance with the structural role that publicity plays within a constitutional democracy.

Traditionally, publicity was closely linked to oral proceedings, as open hearings were the main forum for public oversight. Historically, the principle of oral proceedings was rooted in a time when illiteracy was widespread and spoken word was the only effective method of communication in legal settings. As literacy became universal and modern communication technologies developed, written proceedings gradually took over a larger role. For example, in Lithuania today, oral proceedings in civil matters are largely limited to first-instance courts, and even then, various exceptions apply – from written preparations to entirely written procedures for specific case categories[449]. This gradual shift illustrates how the principle of oral proceedings has increasingly been limited in response to the changing societal needs, rising literacy levels, and the possibilities offered by modern communication technologies. Written proceedings enhance efficiency, and not only in general, but also by helping to avoid unnecessary postponements when parties fail to appear, while allowing each party to carefully formulate their arguments, reduce emotional tension in the courtroom, and ensure more effective use of judicial resources. With an increasing use of written procedures, especially in civil and administrative cases, the practical application of this aspect of the publicity principle has been limited, since no

[448] Ruling of 6 December 2012, no. 33/2009 of the Constitutional Court of the Republic of Lithuania.

[449] See more in: V. Mikelėnas et al., *Civilinio proceso teisė. Bendroji dalis. 1 knyga* [Law of Civil Process. General Part. Book 1] (Vilniaus universiteto leidykla, 2020).

actual hearing takes place anymore. Nonetheless, transparency has been preserved through public access to judgments and case records.

This evolution continues with the rise of remote hearings, which represent the latest phase in adapting the principle of a public hearing to technological developments, extending the courtroom into virtual space. While remote hearings do not inherently violate the principle of publicity, they raise new challenges concerning accessibility, anonymity, procedural safeguards, and technological security. Courts must ensure that the transition to digital formats does not erode the transparency and fairness that the concept of a public hearing was designed to protect.

The ECtHR has long recognized the public hearing as a prerequisite of the right to a fair trial. In *Axen v. Germany*, the Court emphasized that the public character of judicial proceedings protects litigants from secret justice, ensuring transparency and maintaining confidence in the judiciary. By rendering the administration of justice visible, publicity contributes to the achievement of a fair trial[450]. This foundational principle has guided the evolution of public hearings, particularly in the transition from physical courtrooms to digital formats.

While remote hearings remove geographical barriers, they introduce new digital barriers. During the COVID-19 pandemic, for example, special measures were implemented to preserve the openness of proceedings. Individuals wishing to attend hearings were required to obtain special permission to access designated rooms in courts, where live transmission of proceedings was facilitated via video conferencing applications[451]. Access to these rooms was dependent on prior electronic notification and the issuance of access cards, with the number of attendees strictly regulated to maintain social distancing[452]. While these measures were designed to uphold the principle of openness, they also raised concerns regarding procedural

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[450] ECtHR, *Axen v. the Federal Republic of Germany*, No. 8273/78, 8 December 1983, para. 25.

[451] For example, this was done in Poland, see more in: M. Dziurda and P. Grzegorczyk, 'The Influence of COVID-19 Pandemic on the Polish Civil Proceedings from the Perspective of the Supreme Court'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023).

[452] M. Dziurda and P. Grzegorczyk, 'The Influence of COVID-19 Pandemic on the Polish Civil Proceedings from the Perspective of the Supreme Court'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution* (2023), pp. 85–114 (p. 102).

accessibility. Unlike in the traditional courtrooms, where attendees could remain largely anonymous within a crowd, remote hearings often require registration or identification, thereby limiting anonymity and raising privacy concerns. Moreover, security risks, such as ensuring the integrity of proceedings and preventing unauthorized recordings, are unique to digital formats. Additionally, limitations on the number of virtual attendees have sometimes resulted in restricted access to high-profile cases, thus undermining the principle of full public scrutiny.

Despite these challenges, conducting remote hearings *per se* does not inherently violate the right to a public hearing. The ECtHR has acknowledged that the litigants' participation in civil proceedings via a video link (such as *Skype*) can be compatible with the right to a fair hearing, provided that procedural safeguards are in place. For instance, in cases concerning parental responsibility where foreign litigants were unable to enter the country, remote participation was deemed sufficient to uphold fairness[453]. This recognition indicates that while remote hearings represent a departure from the traditional oral hearings, they can still fulfill the requirements of fairness and publicity under the appropriate conditions.

Furthermore, even though the most obvious manifestation of the right to a public hearing is the oral hearing and the assurance that the public will always be able to access the court[454], the requirement for judgments to be pronounced publicly does not necessarily mandate oral delivery in an open courtroom. To establish whether a trial complies with the requirement of publicity, it is necessary to consider the proceedings as a whole[455]. The ECtHR has observed that alternative forms of publicity, such as publishing judgments online[456] or summarizing decisions in public appellate court hearings[457], may also satisfy this requirement. However, courts must ensure that such measures maintain the principle of transparency without disproportionately restricting public access to judicial decisions[458].

To conclude, the widespread adoption of remote hearings has led to a significant shift in the concept of a public hearing. From physical presence to written formats, and now to digital hearings, the concept of public hearing has adapted to changing technological and societal realities. While the traditional

[453] ECtHR, *Jallow v. Norway*, No. 36516/19, 2 December 2021.
[454] S. Trechsel, 'The Right to a Public Hearing'. In: S. Trechsel (ed.), *Human Rights in Criminal Proceedings* (2006), pp. 117–133.
[455] ECtHR, *Axen v. the Federal Republic of Germany*, No. 8273/78, 8 December 1983.
[456] ECtHR, *Straume v. Latvia*, 2022, No. 59402/14, 2 June, para. 131.
[457] ECtHR, *Lamanna v. Austria*, No. 28923/95, 10 October 2001, para. 33-34.
[458] ECtHR, *Pretto and others v. Italy*, No. 7984/77, 8 December 1983, para 26.

understanding of courts as physical spaces has changed, remote proceedings have demonstrated their potential to uphold fairness and publicity. Nonetheless, challenges such as digital exclusion, procedural safeguards, and the balance between transparency and privacy must be carefully managed to ensure that public hearings remain meaningful and accessible in contemporary judicial systems. Moreover, this expanded concept ensures that public hearings can continue even during crises, such as the COVID-19 pandemic, thus reinforcing access to justice in times of disruption.

3.2. Technology as a Tool to Enhance or Challenge Access to Justice

> *A human rights-based approach is necessary to ensure that system transformation not only maintains countries' existing human rights protections but is also used proactively to advance human rights*[459]

The growing integration of technology into judicial systems has been transforming the ways how justice is accessed and delivered, while promising greater fairness, efficiency, and inclusivity. As technology evolves, its application within courts can address barriers that have traditionally impeded individuals from effectively participating in the justice system. In the European Commission's communication "*Digitalisation of Justice in the EU: A Toolbox of Opportunities*[460]," it was noted that further digitalisation of judicial systems holds immense potential to enhance access to justice by automating standardized tasks, improving efficiency, and enabling comprehensive, user-friendly access to legal information, such as legislation, anonymized court decisions, and case progress updates. Moreover, the communication emphasized the importance of interoperable and accessible digital tools and urged the EU and its Member States to continue expanding digitalisation efforts with the objective to ensure equal access to justice for all citizens.

When thoughtfully integrated into judicial systems, technology serves as a transformative force to strengthen access to justice. By enabling remote participation, reducing costs, improving efficiency, and fostering inclusivity,

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[459] The United Nations Development Programme E-Justice: Digital Transformation to Close the Justice Gap, 2022, p. 13, available at: <https://www.undp.org/sites/g/files/zskgke326/files/2022-06/E%20justice-Report%2005.pdf> accessed 30 January 2025.

[460] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions Digitalisation of Justice in the European Union: A Toolbox of Opportunities, COM/2020/710 final, 2020.

it empowers individuals to engage with the legal system more effectively. This section will analyze how the integration of technology, as explored in Section Two, positively impacts the principle of access to justice. Specifically, it will address how innovations such as remote hearings, the adoption of the *LITEKO* court information system, the Lithuanian e-services portal (e.teismas.lt), and the potential use of asynchronous court processes contribute to strengthening access to justice.

While digital tools in judicial systems offer significant benefits, they also introduce complex challenges that may undermine access to justice. According to the *Consultative Committee of European Judges*, IT has to be adapted to the needs of judges and other users, and should never infringe guarantees and procedural rights[461]. Digital tools should serve as instruments to improve efficiency, transparency, and fairness in judicial processes without undermining the core principles of due process, while also ensuring equality before the law, and the right to a fair trial.

At the same time, reliance on automated systems may introduce algorithmic biases, compromise procedural fairness, or erode the transparency of judicial processes if the decision-making mechanisms remain opaque. Moreover, the digital divide can exacerbate inequalities, thus leaving individuals with a limited access to technology or digital literacy at a distinct disadvantage. Technical failures, cybersecurity threats, and inadequate safeguards for data protection further complicate the seamless operation of these systems, and end up potentially delaying justice or exposing sensitive information. These risks underscore the need for cautious and well-regulated implementation so that to ensure that technology enhances rather than detracts from access to justice.

Consequently, the following analysis will assess how various technologies — such as the *LITEKO* court information system, Lithuania's e-services portal e.teismas.lt, remote hearings, asynchronous court processes, and current applications of technology in judicial decision-making, including algorithmic risk assessment in judicial systems, and decision-support systems in judicial practice can both enhance and challenge the principle of access to justice. Additionally, this section will examine how technology affects the ability of court users to understand their rights and whether those rights are adequately protected.

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[461] Consultative Council of European Judges, Opinion No. 14 of the Consultative Council of European Judges Justice and Information Technologies (IT), Adopted by the Consultative Council of European Judges at its 12th Plenary Meeting (Strasbourg, 7–9 November 2011), available at: <https://rm.coe.int/168074816b> accessed 30 January 2025.

Building on the definition of access to justice set out in the introduction to this thesis, this chapter disaggregates the principle into its core components, i.e., the right to a fair trial, judicial independence and impartiality, the guarantee of a fair and public hearing, the rights to legal aid and representation, and the right to an effective remedy. Each of these elements shall be examined separately in relation to technological transformation, thus highlighting how digital and AI tools may both strengthen and undermine them.

3.2.1. Strengthening or Limiting Access to Court and Legal Aid

Although the ECHR does not explicitly enshrine the right of access to a court, it is an integral component of the broader right to a fair trial, as established through ECtHR case law. In the case of *Golder v. the United Kingdom*, the court noted that "it would be inconceivable, that Article 6 (1) should describe in detail the procedural guarantees afforded to parties in a pending lawsuit and should not first protect that which alone makes it in fact possible to benefit from such guarantees, that is, access to court. The fair, public and expeditious characteristics of judicial proceedings are of no value at all if there are no judicial proceedings[462]", thus emphasizing that even though access to a court is not explicitly embodied in the text of the ECHR, it is essential for proper assurance of the right to a fair trial. Furthermore, the wording of the *EU Charter of Fundamental Rights* extends this protection to all rights and freedoms arising from the EU law. Accordingly, the right of access to a court applies whenever such rights and freedoms are at stake.

This principle is also firmly embedded in the Constitution of the Republic of Lithuania[463]. Article 30(1) guarantees the right of every person whose constitutional rights or freedoms are violated to apply to a court, and the Constitutional Court has repeatedly emphasized that this right must not be artificially restricted or unreasonably burdened, as such restrictions would render the right purely declaratory[464].

The core of the right of access to a court is its availability. The CJEU has clarified that accessibility can be hindered by factors such as the geographical remoteness of a court in relation to a litigant's residence, which may create

[462] ECtHR, *Golder v. the United Kingdom*, No. 4451/70, 21 February 1975.
[463] Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992, No. 220-0.
[464] Ruling of 1 March 2019, No. 1/2018 of the Constitutional Court of the Republic of Lithuania, Ruling of 16 April 2014, No. 125/2010-26/2011-21/2012-6/2013-8/2013-10/2013 of the Constitutional Court of the Republic of Lithuania.

obstacles to initiating legal proceedings[465]. Similarly, the CEPEJ discussed that public access to justice means that the court should have good public transport links, public parking nearby, and, wherever possible, a drop-off area; also, the public must be provided with information on access to the courthouse, free access to the Internet through Wi-Fi, etc.[466]; in addition, it emphasized that the geographical location of the court may still be highly important due to the need to provide access to justice at a local level and transport needs, and also the availability of modern means of communication may have an impact on the public's ability to access justice[467]. Ultimately, court accessibility is not only about physical presence but also about removing practical intangible barriers that might prevent individuals from exercising their right to justice.

In its *2008 Checklist for Promoting the Quality of Justice and the Courts*[468], the CEPEJ further outlined key aspects that contribute to meaningful access, including financial accessibility, fair treatment of parties, transparent decision-making, and public trust in the judiciary. These considerations reflect the broader role of access to a court in ensuring fair administration of justice.

Accessibility to courts includes various layers: 1) Geographical (courts should be easy to reach, and should be located close to where people live); 2) Financial (the costs, both in time and money, of accessing courts, should not create a barrier); 3) Information and infrastructure (adequate public information about court access, transport links, and virtual accessibility is essential); 4) Technological (modern communication tools should complement the traditional methods in order to address evolving public needs effectively). This multifaceted approach ensures that access to a court is not only a legal principle, but is truly a practical reality for all individuals.

The introduction of various technologies in courts significantly enhances their geographical accessibility. The use of court information systems, such as *LITEKO*, increases access to justice in a sense that courts become available without the restriction of their geographical location – in the sense that individuals are no longer required to travel to courts physically in order to

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465 CJEU, C-567/13, *Nóra Baczó and János István Vizsnyiczai v. Raiffeisen Bank Zrt*, 12 February 2015, paras. 56-57.

466 Guidelines on the Organisation and Accessibility of Court Premises, 12 December 2014; Council of Europe, CEPEJ (2008).

467 Guidelines on the Creation of Judicial Maps to Support Access to Justice within a Quality Judicial System, 21 June 2013, Council of Europe, CEPEJ (2014).

468 Council of Europe, CEPEJ (2008), Checklist for Promoting the Quality of Justice and the Court, 3 July 2008.

receive information or initiate proceedings; it also contributes to shorter waiting lines at court reception desks. Not to mention, the use of court information systems contributes to enhancing access to justice for isolated individuals (women, people with disabilities, linguistic minorities, displaced people). Another important aspect, contributing to enhancing access to justice, is that it can facilitate people's access to courts outside of their business hours. Accordingly, when required information can be obtained directly from court websites, the court staff have more time to concentrate on more complex requests.

Moreover, as more and more information can be found on court information systems, access to justice is increased by the capacity of users to find the needed information by themselves. As famously put by the ECtHR, it is possible for an individual to have effective access to court when appearing before a high court if the guidance provided by the procedural rules and court directions, together with some legal advice and assistance, is sufficient to provide them an effective opportunity to put forward their case[469]. Accordingly, when information on, for example, how to bring and monitor proceedings, access a decision in a case as soon as it has been delivered, is provided in the court systems, it also contributes to enhancing access to legal aid. Consequently, as individuals only tend to visit physical courts, when necessary, the need for court buildings is decreasing, which results in efficiently reallocating the highly limited resources.

In line with broader digitalisation efforts, Lithuania's e-services portal, e.teismas.lt, enhances geographical accessibility. First, the ability to initiate proceedings remotely eliminates the need for users to travel to a court in person or mail physical 'paper' documents to start legal actions. Instead, all necessary documents can be uploaded online, thus removing the requirement of proximity to a courthouse. Second, the portal's 24/7 availability enables users to access court services beyond the traditional working hours. This feature is especially beneficial for individuals in relatively remote areas, or those with inflexible schedules and limited travel options. Third, the portal reduces the need for users to travel to a courthouse, thus saving both time and money. This makes court services more accessible, particularly for individuals in geographically remote or underserved regions. Fourth, enhanced communication between courts and other legal institutions (e.g., bailiffs, lawyers, notaries) through electronic tools minimizes the need for physical interactions, benefiting those in areas lacking convenient access to these services. Fifth, the ability for participants to monitor case progress online

[469] ECtHR, *A. v. the United Kingdom*, No. 35373/97, 17 December 2002, para. 97.

eliminates the need to visit a court in person to check the status of a case, thereby effectively breaking down geographical barriers. Sixth, the portal offers harmonized and user-friendly forms, simplifying the document submission process. This allows individuals to prepare and submit documents from any location without requiring in-person guidance.

Various studies show that remote dispute resolution also helps to facilitate better implementation of the fundamental right to justice as it removes a number of barriers to justice such as financial situation, disability, shyness to communicate live, and other potential obstacles of going to court[470]. The introduction of remote court hearings also significantly enhances geographical access to court by addressing physical and logistical barriers. Remote hearings allow parties, lawyers, witnesses, and experts to participate in judicial proceedings without needing to travel to a physical courthouse. This is especially beneficial for individuals living in remote or rural areas, or in cross-border disputes, where traveling would be prohibitively costly and time-consuming. Remote hearings save participants the time required for commuting to and from court, which can be particularly burdensome for those living far from court facilities. This time-saving aspect also enables courts to schedule and resolve cases more efficiently. Remote participation facilitates access to experts or interpreters who may not be available locally. This expands the pool of qualified professionals who can contribute to the case without geographical constraints. In addition, in its 2008-dated study, videoconferencing was defined as a means that can help to guarantee or improve access to justice – its advantage to prisoners and pre-trial detainees (and, consequently, the advantage for the protection of vulnerable people (victims) due to the fact that these people do not need to go to the court), as well as benefits to parties of cross-border disputes in terms of travelling to courts were noted[471]. On the contrary, the traditional hearings might limit the court availability for those having difficulties to attend the court in person.

Asynchronous court processes could further enhance geographical access to court. By removing the requirement for parties to be present in a physical or virtual courtroom at the same time, these processes enable individuals from remote or rural areas to participate in court proceedings without the need for travel, thereby reducing costs and logistical challenges. Asynchronous communication allows all parties involved, lawyers, and judges to engage

[470] M. H. Conley Tyler and M. W. Mcpherson, 'Online Dispute Resolution and Family Disputes' (2006) *Journal of Family Studies, 12*(2), pp. 165-169;

[471] CEPEJ Studies No. 11, European Judicial Systems (Edition 2008: Data 2006): Efficiency and Quality of Justice, Strasbourg. The full text is available at the website of CEPEJ: www.coe.int/cepej.

with cases at their convenience, regardless of the location or time zone. This is particularly advantageous in cross-border disputes or for individuals in geographically dispersed regions. By enabling round-the-clock access to the court system, asynchronous processes eliminate geographical barriers such as courthouse hours and the need for physical proximity to legal institutions. Vulnerable groups, including the elderly, disabled, or those unable to travel, can participate more easily in legal proceedings, due to requiring only internet access to engage with the court.

The financial aspect of access to court is another critical factor, as high costs associated with the legal proceedings, travel, and representation can deter individuals from pursuing justice. Paperless communication with court users enhances access to justice through efficiency – it is a time- and cost-saving method of handling cases. The availability of courts is increased considering that the requirement to initiate court proceedings or to deliver court documents by post or physically to courts there exists no longer – as all paperwork can be directly uploaded via special electronic portals. This use of technology contributes to better access to justice by decreasing costs, earlier caused by the need to print out the documents to be delivered to courts (either physically, and, accordingly, the costs of travelling to courts, or by post, and, accordingly, reducing the shipping costs). Additionally, the use of electronic communication throughout proceedings often leads to reduced litigation costs. This provides motivation for individuals with limited financial resources or those involved in low-value disputes to pursue justice, as the overall cost of handling cases becomes significantly lower[472]. Time is being saved by the fact that there is no longer a need to deliver documentation to courts or to post the paperwork, nor is there any lag to wait for the paperwork to be delivered.

Moreover, the ability of participants to track the progress of their cases ensures that they are better informed about the case status, which leads to a lower proportion of postponed hearings due to a significant increase in court appearance rates for both parties. This, in turn, enhances the overall efficiency of court operations. Additionally, the availability of standardized case forms and other documents on the portal saves time for both the court staff (as work with harmonized documents is more efficient) and the litigants. It also improves access to justice by simplifying the document submission process,

[472] For example, in Lithuania, if the procedural documents are submitted to the court only by means of electronic communication and if a wish is expressed to receive the procedural documents only by these means, 75 percent of the amount of the stamp duty payable for the relevant procedural document shall only be paid.

making it clearer and more user-friendly, which can sometimes reduce the costs of legal representation by enabling individuals to represent themselves.

Back in 2007, the CEPEJ suggested that physical access to the courts will probably become less and less important, and that the use of videoconferencing will gradually help to make judicial services more accessible[473]. In addition, in the guidelines from 2016 on how to drive change towards Cyberjustice, videoconferencing was named a significant means of saving time and expense[474]. The advantage of remote hearings, in particular in cross-border situations, is the possibility to remove the need to travel to court to take part in judicial proceedings, which was also observed in the *2014–2018 e-Justice Action Plan*[475]. Remote hearings save time and reduce costs for both the parties and the courts themselves, and these examples include savings on transportation and avoiding lost income from taking time off work.

Another major advantage of remote hearings is their time-saving potential, especially concerning travel and commuting. As the number of cases heard in courts and pending cases continues to rise, remote hearings help reduce case duration significantly. For instance, the *Supreme Administrative Court of Lithuania* reported that, in 2020, it resolved 820 more cases than it received that year, thereby indirectly demonstrating the efficiency gains of remote proceedings during the pandemic[476].

The use of this method significantly reduces the costs not only of both parties to the dispute, but also of the decision-making authority. *The United Kingdom Online Dispute Resolution Advisory Group of the Civil Justice Council* issued a report called "*Online Dispute Resolution for Low Value Civil Claims*", which was adopted in 2015, emphasizing that if a certain number of disputes can be resolved virtually in the long run, the need to have court buildings will be reduced, and it will significantly reduce the operating costs

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473 CEPEJ Studies No. 9, Access to Justice in Europe, Strasbourg. The full version is available at the website of the CEPEJ: www.coe.int/cepej.

474 CEPEJ, Guidelines on how to Drive Change towards Cyberjustice: Stock-Taking of Tools Deployed and Summary of Good Practices, REF 020017GBR, 7 December 2016. Available at: <https://rm.coe.int/16807482de#_Toc462148791> accessed 30 January 2025.

475 Multiannual European e-Justice Action Plan 2014-2018, OJ C 182, 14.6.2014, pp. 2–13, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XG0614(01)&from=DE> accessed 30 January 2025.

476 Overview of the Activities of the Supreme Administrative Court of Lithuania of 2021. Available at: <https://www.lvat.lt/doclib/or71pgrothce3kwe66a2a8qe4z4wqw5z> accessed 30 January 2025.

of the courts. Considering the abovementioned points and also bearing in mind that another side-effect of the COVID-19 pandemic was the remote work of court employees, it can be concluded that costs can be saved to an even greater extent.

Finally, remote court hearings and the widespread use of court information and filing systems align with the principle of sustainability and the United Nations *2030 Agenda for Sustainable Development*[477], as a reduction of the need for travel to courts significantly lowers CO_2 emissions.

Incorporation of asynchronous online courts to modernize court systems improves access to justice by reducing costs, resolving disputes more efficiently, and making courts available around the clock. Asynchronous court processes cut costs by eliminating the need for travel, minimizing administrative expenses, and enabling paperless procedures, thus saving time and resources for both litigants and courts. These systems streamline litigation, making it faster and more affordable, especially for low-value disputes, and allow parties to participate at their convenience without taking time off work. By lowering financial barriers, they enhance access to justice for all, including vulnerable groups. This method requires only internet access, while avoiding the need for physical travel or mailing documents, and enables the litigating parties to communicate with each other and judges at times most convenient for them. In terms of efficiency and the legal maxim that justice delayed is justice denied, it is claimed that the average court time for an online trial is twenty-eight minutes, whereas, for closing a case, it spans on average across forty-one days[478].

Information and infrastructure are critical components of ensuring access to court, as they bridge the gap between individuals and the judicial system. However, despite these technological advancements, practical inconsistencies in the use of digital systems may still hinder access to court. In Lithuania, one such issue is the lack of a standardized approach to providing parties with access links to remote court hearings. Courts may deliver these links via different channels, such as the portal, official summons, or direct email, depending on internal practices. This fragmented communication can confuse participants, especially those without legal representation or with limited digital literacy, and may result in missed hearings or delays. As a result, inconsistency in infrastructure at the level of communication undermines the

[477] UN General Assembly, 'Transforming our World: the 2030 Agenda for Sustainable Development', 21 October 2015, A/RES/70/1, available at: <https://www.refworld.org/docid/57b6e3e44.html> accessed 30 January 2025.

[478] C. Xi, 'Asynchronous Online Courts: The Future of Courts?', (2023) *Oregon Review of International Law*, *Vol. 24*, pp. 39-94.

effectiveness of otherwise accessible court technologies. Ensuring meaningful access also requires that individuals should be provided with clear and unambiguous, accurate, and easily accessible guidance on the legal procedures, court locations, schedules, case updates, and available legal resources. Without such information, individuals, and particularly those unfamiliar with the legal systems, may struggle to initiate or pursue their cases effectively, thereby potentially deterring them from seeking justice. Infrastructure, on the other hand, refers to the physical and digital systems that support the functioning of courts, including digital platforms for case management and communication. Both aspects work hand-in-hand to remove barriers that might prevent individuals from exercising their right to seek justice.

The *LITEKO* court information system plays a pivotal role by digitalising and centralizing court-related information, enabling users to track case progress, viewing procedural requirements, and accessing court schedules online. This transparency not only reduces reliance on the court staff but also empowers litigants to participate actively in their cases. Similarly, the 'e.teismas.lt' portal enhances access by allowing individuals to file documents electronically and retrieve the necessary resources at any time, thus reducing the need for physical travel to court offices. This integration of information and infrastructure not only enhances efficiency but also ensures that courts can provide comprehensive and easily accessible information while modernizing their operations. By combining these tools, courts create a system where individuals from all backgrounds – regardless of their location, financial means, or personal circumstances – can effectively access justice.

Modern communication tools play a pivotal role in enhancing access to justice by complementing the traditional methods and adapting to the evolving public needs. By integrating technology, courts can bridge gaps in accessibility, streamline processes, and provide a more user-centric approach to judicial services. The *LITEKO* court information system digitalises court operations, by providing real-time updates on case statuses, procedural guidance, and access to documents. This reduces the reliance on in-person interactions while preserving the traditional court services for those who prefer and/or require them. Similarly, the 'e.teismas.lt' portal offers electronic filing and an access to templates and resources, enabling individuals to engage with court services outside of its regular working hours. By maintaining both digital and in-person options, these tools ensure that all users, regardless of their technological proficiency and any other circumstances of personal relevance, can access the justice system effectively.

Remote hearings further complement the traditional court methods by allowing the litigating parties, lawyers, and witnesses to participate from any location, only with internet access. Videoconferencing replicates face-to-face interactions while reducing logistical barriers, yet in-person hearings remain available for those who cannot engage remotely. Asynchronous court processes build on this flexibility, thus enabling the participants to interact with cases at their convenience, while making judicial services accessible to those with demanding schedules or limited availability. For more complex or urgent cases, traditional real-time hearings are retained, thus ensuring procedural fairness and thorough engagement.

By balancing modern communication tools with the traditional methods, courts can offer a hybrid approach which meets the diverse needs of users while maintaining the principles of accessibility, inclusivity, and fairness. This integration not only modernizes judicial processes but also strengthens public trust and engagement with the justice system.

Access to legal aid is another fundamental component of the right to a fair trial. Article 47 of the *Charter of Fundamental Rights of the EU expressis verbis* indicates that legal aid shall be made available to those who lack sufficient resources in so far as such aid is necessary to ensure an effective access to justice[479]. While linguistically, in terms of the phraseology used, Article 6 (1) of the ECHR makes no direct reference to legal aid (in contrast, for example, Article 6 (3)(c) states that everyone charged with a criminal offence has the right to defend himself in person or through legal assistance of his/her own choosing or, if s/he is not in possession of sufficient means to pay for legal assistance, to be given it free when the interests of justice so require)[480], the ECtHR case law confirms that the right to access a court may, in some cases, require states to provide legal assistance to ensure fair proceedings[481].

The adequacy of access to legal aid depends on the specific circumstances of each case, with the key criterion being whether, in light of all relevant factors, the lack of legal aid would deprive the litigant of a fair hearing[482]. The CJEU has summarized that when assessing requests for legal aid, courts should consider the subject matter of the litigation, the applicant's prospects of success, the importance of the case for the applicant, the complexity of the applicable law and procedure, the applicant's ability to

[479] Charter of Fundamental Rights of the European Union, OJ 2012 C 326.
[480] Universal Declaration of Human Rights of 10 December 1948.
[481] ECtHR, *Airey v. Ireland*, No. 6289/73, 9 October 1979, para. 26.
[482] ECtHR, *McVicar v. the United Kingdom*, No. 46311/99, 7 May 2002, para. 5.

represent themselves effectively, and whether the cost of proceedings would pose an insurmountable obstacle to accessing the courts[483].

Similarly, the ECtHR has elaborated on these considerations, by emphasizing the significance of the case to the individual[484], the complexity of the relevant law or procedure[485], the applicant's capacity to represent themselves effectively[486], and the existence of a statutory requirement for legal representation[487]. While the right to legal aid is not absolute, courts must provide justified reasons when refusing legal aid and handle requests with due diligence[488].

In the Lithuanian constitutional framework, the obligation to ensure access to legal aid has also been explicitly recognized. The Constitutional Court has held that the right of access to court under Article 30(1) and the right to a fair trial under Article 31(2) together require the state to guarantee effective legal assistance, including counselling and representation, to socially vulnerable individuals, for whom legal services would otherwise be inaccessible. This duty arises particularly when such support is necessary to ensure the effective exercise of constitutional rights and compliance with the principles of justice[489].Moreover, states have autonomy in determining how to fulfil this obligation, leading to diverse legal aid systems. In some cases, an individual may effectively access courts, even before a high court, if procedural guidance, court directions, and limited legal advice are sufficient to enable them to present their case[490]. Legal aid may cover both legal representation and exemptions from court costs[491]. The Legal Aid Directive[492] further specifies that legal aid should include pre-litigation advice to facilitate

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483 CJEU, C-279/09, *DEB Deutsche Energiehandels- und Beratungsgesellschaft mbH v. Bundesrepublik Deutschland*, 22 December 2010, paras. 52–54.

484 ECtHR, *Steel and Morris v. the United Kingdom*, No. 68416/01, 15 February 2005, para. 61.

485 ECtHR, *McVicar v. the United Kingdom*, No. 46311/99, 7 May 2002, para. 54.

486 ECtHR, *Timofeyev and Postupkin v. Russia*, Nos. 45431/14 and 22769/15, 19 Januay 2021, paras. 104-107.

487 ECtHR, *Airey v. Ireland*, No. 6289/73, 9 October 1979, para. 26.

488 ECtHR, *Saoud v. France*, No. 9375/02, 9 October 2007, paras. 133-136.

489 Ruling of 9 July 2015, No. 26/2014-4/2015 of the Constitutional Court of the Republic of Lithuania.

490 ECtHR, *A. v. the United Kingdom*, No. 35373/97, 17 December 2002, para. 97.

491 CJEU, C-279/09, *DEB Deutsche Energiehandels- und Beratungsgesellschaft mbH v. Bundesrepublik Deutschland*, 22 December 2010, para. 48

492 Council Directive 2002/8/EC of 27 January 2003 to Improve Access to Justice in Cross-Border Disputes by Establishing Minimum Common Rules Relating to Legal Aid for Such Disputes, OJ 2003 L 026.

settlements, legal assistance in bringing a case before a court, representation during proceedings, and help with or exemption from court fees.

Technology plays a transformative role in enhancing access to legal aid by addressing financial, geographical, and procedural barriers. Tools like the *LITEKO* court information system and the 'e.teismas.lt' portal provide centralized access to legal resources, case updates, and procedural information, reducing the need for in-person consultations and simplifying complex legal processes. These platforms empower individuals to navigate legal systems independently, ensuring that even those unable to afford a lawyer can effectively engage with the judicial process.

Additionally, digital tools enhance procedural transparency, allowing the participants to track case progress and receive timely notifications. This reduces the likelihood of postponed hearings and contributes to higher court appearance rates, thus improving the overall efficiency of legal proceedings. The availability of standardized case forms and other legal documents further streamlines the process, enabling individuals to prepare submissions without requiring extensive legal expertise. In some cases, this simplification even reduces the necessity for legal representation, allowing individuals to self-represent more effectively.

Remote hearings and asynchronous court processes further strengthen access to legal aid by enabling individuals in remote areas or those with mobility limitations to connect with legal professionals without the burden of travel. These tools also facilitate flexible communication between legal aid providers and clients, allowing for timely legal guidance irrespective of location. Moreover, standardized templates and digital submission features reduce dependence on specialized legal knowledge, empowering individuals to seek justice even in the absence of full legal representation.

For vulnerable groups, including persons with disabilities and linguistic minorities, technology provides critical accessibility solutions such as adaptive user interfaces, assistive technologies, and translation services. These advancements ensure that digital legal aid platforms remain inclusive and equitable, allowing all individuals to benefit from legal assistance regardless of their personal circumstances.

However, while digitalisation has significantly improved access to court and legal aid, it has also introduced new barriers. While technology has significantly improved access to court, there is the other side of the coin. In some cases, it can negatively affect access to court. The following aspects, which may create challenges, shall be analyzed below: 1) Societal divide (the digital and social inequalities between groups, such as those with and without digital literacy or internet access); 2) Infrastructure and technical challenges

(issues related to outdated systems, poor internet connectivity, or system failures that hinder court operations); 3) Privacy concerns and cybersecurity (risks of data breaches, cyberattacks, or mishandling of sensitive information during digital court proceedings). This balanced evaluation will shed light on the risks associated with the technological modernization of courts and provide insights into potential solutions.

The principle of access to court is a cornerstone of the rule of law, ensuring that all individuals, regardless of their circumstances, have the opportunity to seek redress and enforce their rights. However, the societal divide created by disparities in digital literacy, technological access, and economic resources threatens to undermine the universality and effectiveness of this principle. One of the most significant challenges posed by the digitalisation of court systems is this growing divide, which risks limiting access to justice for marginalized and vulnerable groups. Rooted primarily in disparities in digital literacy, internet access, and technological resources, this divide leads to digital exclusion for certain individuals and communities.

It can take the form of digital exclusion, affecting groups such as the elderly, homeless individuals, and those in economically disadvantaged or geographically remote areas, who often lack access to the internet, computers, or smartphones. For instance, elderly individuals may struggle with operating digital platforms due to unfamiliarity with modern technology, while individuals in remote areas may face limited internet connectivity. As a result, these groups risk being excluded from participating in remote court hearings or utilizing e-filing systems, which increasingly form the backbone of modern judicial processes. Additionally, it can take the form of inequality in digital literacy. Digital literacy, i.e., the ability to use and understand technology effectively, varies widely across populations. More educated individuals or those who are technologically adept are better positioned to navigate court information systems, which results in an imbalance of opportunities. This 'digital superiority' can further marginalize those with limited skills, perpetuating systemic inequalities. The advancements of the digital age have heightened the importance of digital literacy, making it an essential skill not only for accessing courts but for many other aspects of modern society. Without adequate support, those lacking these skills may find themselves entirely excluded from justice.

The principle of access to court traditionally guarantees universal access, irrespective of a person's background or resources. However, the societal divide, caused by technological barriers, introduces a conditional element: access to court becomes contingent on an individual's ability to engage with digital tools. This conditionality undermines the universality of the principle,

creating disparities based on digital literacy and technological resources. Naturally, it also affects procedural equality, which is a core aspect of access to court, that is compromised when some parties are better equipped to use digital systems than others. Those denoted by higher digital literacy and in access to (superior) technology are better able to file documents, attend hearings, and navigate court procedures, resulting in advantage over less equipped counterparts. This inequality undermines the fairness of the judicial process, contradicting the core tenet that all parties should stand on equal footing. As Agnė Juškevičiūtė-Vilienė notes, digital technologies may improve access to justice but are not equally accessible to all. Drawing on the Constitutional Court's jurisprudence, A. Juškevičiūtė-Vilienė highlights that the digital divide – shaped by age, education, socioeconomic status, and other factors – risks excluding some individuals from effectively exercising their constitutional rights. In such cases, the state must ensure appropriate education and capacity-building in the field of information technologies to fulfil its obligation to make justice accessible to all[493].

In conclusion, the societal divide shifts the principle of access to court from a universal and unconditional right to a privilege dependent on external factors such as technology and digital skills. This shift narrows down the scope of this principle in several ways. First of all, access is no longer equally available to all, disproportionately affecting vulnerable groups and diminishing the principle's inclusivity. Secondly, the principle becomes contingent on resources and skills, moving away from its original intention to provide unimpeded access for all. Thirdly, the inability of certain groups to access courts diminishes public trust in the judiciary, as the system appears to favor those who are better equipped to engage with it digitally.

Various measures have been used to combat this problem in different countries, for example, attempts were made to overcome this problem when using remote hearings, special assistants, the possibility of providing a separate room where a person could come physically and join the hearing, and also various trainings, changes in science and study programs to include more and more subjects related to technological literacy, etc. To overcome this problem, in some countries[494] where a party of a case or a witness does not

[493] A. Juškevičiūtė-Vilienė, 'Artificial Intelligence and the Constitutional Right of Access to Justice = Dirbtinis intelektas ir konstitucinė teisė į teisingumą' (2020) *Acta Universitatis Lodziensis. Folia Iuridica 93*, pp. 117–136. DOI: 10.18778/0208-6069.93.08.

[494] For example, in Poland, see more in: U. Zółtak and B. Jedrys, 'Common Courts and Pandemic COVID-19 – the Lesson that should be Learned from Practice'. In: K. Gajda-Roszczynialska (ed.), *Impact of the COVID-19 Pandemic on Justice*

have an access to the Internet, a separate room in the court building is provided. Mostly, the use of court information systems poses a risk to undermining access to justice for some (for example, those without the functional internet connection) if it entirely replaces the traditional procedure[495]. In this regard, the CJEU noted that electronic means cannot be the only means offered by which the settlement procedure may be accessed, and interim measures are possible[496]. It can be concluded that maintaining the traditional methods for court access alongside digital solutions can ensure inclusivity.

As pointed out by the CCJE in relation to access to court, the use of IT should not diminish procedural safeguards for those who do not have access to new technologies. States must ensure that parties without such access are provided specific assistance in this field[497]. Targeted support, such as providing technical assistance and resources like dedicated spaces with internet access and devices, can also help solve this problem, along with investment in improving digital literacy through training programs and educational reforms.

Some e-filing-related concerns involve an attempt to file a document that may fail for reasons not related to the published rules (such as where a file is too large for the system to handle), or for reasons that are obscure to both the litigant and the registry[498]. The principle of access to court guarantees that all individuals have the opportunity to seek justice without undue barriers. However, infrastructure and technical challenges inherent in the digitalisation of judicial systems can compromise this principle, particularly by disrupting the reliability and accessibility of court services. These challenges create practical obstacles which limit the scope of access to court, affecting both its

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Systems: Reconstruction or Erosion of Justice Systems – Case Study and Suggested Solution (2023), pp. 115–136 (p. 127).

495 FRA and CoE, *Handbook on European Law Relating to Access to Justice* (Publications Office, 2016).

496 CJEU, joined cases C-317/08 to C-320/08, *Rosalba Alassini v. Telecom Italia SpA*, *Filomena Califano v. Wind SpA*, *Lucia Anna Giorgia Iacono v. Telecom Italia SpA and Multiservice Srl v. Telecom Italia SpA*, 18 March 2010, para. 67.

497 Consultative Council of European Judges, Opinion No. 14 of the Consultative Council of European Judges Justice and Information Technologies (IT), Adopted by the Consultative Council of European Judges at its 12th Plenary Meeting (Strasbourg, 7–9 November 2011), available at: <https://rm.coe.int/168074816b> accessed 30 January 2025.

498 F. Bell et al., *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (The Australasian Institute of Judicial Administration Incorporated, Australia, published June 2022; revised and republished December 2023).

universality and effectiveness. Disruptions in service, such as outdated or poorly maintained IT systems, can experience crashes, delays, or outages, preventing users from filing documents, attending virtual hearings, or accessing case information. These disruptions create procedural delays and can even result in missed deadlines, which leads to jeopardising the litigants' ability to participate fully in the judicial process. In addition, the principle of access to court includes the right to a timely resolution of disputes. Technical failures undermine this by delaying proceedings and creating backlogs. Poor internet connectivity also leads to disruptions in communication, misunderstandings, or the inability to fully participate in proceedings.

Another aspect of infrastructure and technical challenges and their effect on the principle of access to court is inconsistent infrastructure across jurisdictions. For example, courts in rural or economically disadvantaged areas often lack the technological infrastructure, such as high-speed internet or updated software, which is available in major urban centrers. This disparity creates unequal access to court, undermining the principle of equality before the law. Also, inconsistent adoption of technology within a jurisdiction can result in uneven access to digital court services, leaving some users better served than others.

The same problems may arise with remote hearings. Technical issues, especially at the beginning of using remote hearings, disturbed the smooth work of courts. Technical solutions, implemented in courts at the time, were already outdated at the time of their installation, whereas the Internet quality was poor, and, due to the low digital literacy level of the participants, judges often had to teach them on how to use an application during the hearing. After all, inability to see or hear each other sufficiently is not compatible with fair proceedings.

In conclusion, infrastructure and technical challenges narrow down the scope of the principle of access to court by introducing inconsistencies and unreliability, which significantly impacts the judicial process. Frequent disruptions and system failures undermine public confidence, as users may perceive the court system as inaccessible or inefficient. Unequal infrastructure development amplifies disparities between jurisdictions and user groups, leading to an unequal application of the principle. Furthermore, delays and technical issues hinder the timely delivery of justice, directly contradicting the core aim of access to court.

It is particularly important to ensure that difficulties in the functioning of IT do not prevent the court system, even for short periods, from taking decisions and ordering appropriate procedural steps. Appropriate alternatives should always be available whenever the IT system is under maintenance, or

when technical incidents do occur, in order to avoid any adverse impact on the court activity[499]. By modernizing the court infrastructure with regularly updated systems and high-speed internet, providing alternatives such as paper filings or in-person hearings, and prioritizing the development of infrastructure in rural jurisdictions, these challenges can be mitigated.

The principle of access to court ensures that individuals can seek justice in a secure and trustworthy environment. However, the increasing reliance on digital technologies in court systems introduces significant privacy and cybersecurity concerns that threaten to undermine this principle. These challenges impact the scope and reliability of access to court, thus lowering public confidence and creating barriers for users.

Digital court systems store vast amounts of sensitive personal and legal data. Cyberattacks targeting these systems can result in unauthorized access, theft, or manipulation of this information, violating the privacy of court users and diminishing trust in the judicial process. Similarly, regarding remote court hearings, there are risks, such as sending a link to a hearing to the wrong person or failing to properly separate the parties, which could lead to bystanders appearing in the camera view or overhearing the proceedings. Also, remote court hearings conducted via videoconferencing platforms may be vulnerable to unauthorized access if security protocols are inadequate, thus potentially exposing confidential discussions in closed sessions. As pointed out by the CEPEJ, although such risks are not, in themselves, unique to the digital age (in every country, there have been cases in the past where paper documents were stolen or tampered with, or went missing outright), the fear here is of a large-scale attack, and justice systems need to come up with pragmatic answers to the question of how secure information systems need to be[500].

To conclude, privacy concerns and cybersecurity risks narrow down the scope of the principle of access to court by creating a less secure and reliable environment for judicial proceedings. Breaches and cyberattacks undermine public confidence in the judiciary's ability to protect sensitive information, deterring individuals from using digital court services. These concerns also

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[499] CEPEJ, Guidelines on how to Drive Change towards Cyberjustice: Stock-Taking of Tools Deployed and Summary of Good Practices, REF 020017GBR, 7 December 2016, available at: <https://rm.coe.int/16807482de#_Toc462148791> accessed 30 January 2025.

[500] CEPEJ, Guidelines on how to Drive Change towards Cyberjustice: Stock-Taking of Tools Deployed and Summary of Good Practices, REF 020017GBR, 7 December 2016, available at: <https://rm.coe.int/16807482de#_Toc462148791> accessed 30 January 2025.

create psychological barriers for users who may feel reluctant or unsafe when engaging with digital systems. Furthermore, cyberattacks or data breaches can disrupt court operations, by delaying proceedings and preventing users from receiving timely resolutions to their cases, directly contradicting the core aim of access to justice. To address privacy and cybersecurity concerns, courts must implement robust measures such as enhanced cybersecurity frameworks, including state-of-the-art encryption, multi-factor authentication, and regular security audits, as well as secure remote hearing platforms that meet high-security standards to minimize unauthorized access. Additionally, providing training on secure data handling for the court staff and users, along with clear contingency plans for responding to breaches or attacks, ensures the system's integrity and continuity of operations.

In conclusion, access to court remains a cornerstone of the rule of law, ensuring that individuals can seek remedies, protect their rights, and uphold equality before the law. However, the integration of technology into judicial systems has introduced three key challenges – societal divide, infrastructure and technical challenges, and privacy concerns involving cybersecurity risks – that threaten the inclusivity, reliability, and universality of this principle.

The societal divide, caused by disparities in digital literacy, internet access, and technological resources, excludes marginalized groups such as the elderly, those in remote areas, and economically disadvantaged individuals from judicial processes. To address this issue, courts must retain traditional access methods, provide tailored support such as internet-equipped spaces and digital assistants, and invest in digital literacy initiatives. Infrastructure and technical challenges, including outdated systems, poor connectivity, and system failures, create delays and inconsistencies, disproportionately affecting the underserved areas. Modernizing infrastructure, offering alternative methods like in-person filings, and ensuring equitable technological development is essential to bridging these gaps. Privacy concerns and cybersecurity risks, such as data breaches and cyberattacks, undermine trust and create psychological barriers to using digital systems. Courts can mitigate these risks through robust cybersecurity frameworks, secure platforms, staff training, and contingency planning.

Legal aid plays a pivotal role in facilitating access to court by providing individuals with the knowledge, guidance, and representation needed to navigate complex judicial processes. Digital platforms like *LITEKO* and e.teismas.lt have significantly enhanced the accessibility and efficiency of legal aid by streamlining the processes and providing self-help tools. However, as well as with access to court, these systems also create barriers for

vulnerable populations, including the elderly, those in rural areas, and individuals with limited digital literacy or resources. The societal divide in digital access risks excluding these groups from vital legal aid services, perpetuating inequality, and limiting their ability to seek timely assistance. Infrastructure and technical challenges, such as outdated systems, poor connectivity, and system outages, further hinder access, particularly in underserved regions, by delaying or preventing support for those who rely on legal aid. Additionally, privacy concerns and cybersecurity risks deter individuals from using these platforms, undermining trust in digital systems and creating psychological barriers to engagement.

AI tools in assisting in adjudication analyzed in this study present additional challenges, as their opaque algorithms often operate as 'black boxes', preventing the litigants and their representatives from understanding or contesting the recommendations they have generated. This lack of transparency disproportionately affects those individuals who are reliant on legal aid, as they lack the resources or expertise to challenge AI-driven decisions. The potential introduction of autonomous AI systems in adjudication compounds these issues by removing human oversight and failing to consider the unique complexities of individual cases. To address these challenges, it is essential to combine digital tools with the traditional methods, ensure transparency in AI systems, and provide targeted support to bridge the digital divide. These steps are crucial to preserving access to legal aid as a universal and equitable right.

Access to court and legal aid is a fundamental pillar of the right to a fair trial, ensuring that individuals can seek justice effectively. Technological advancements, including digital court systems, remote hearings, and asynchronous processes, have significantly improved accessibility by addressing geographical, financial, and informational barriers. However, these advancements also introduce challenges, such as digital divides, infrastructure limitations, and cybersecurity risks, which can disproportionately impact vulnerable populations.

To maintain an inclusive justice system, courts must balance innovation with accessibility, by ensuring that traditional legal pathways remain available for those unable to engage with digital tools. Targeted solutions, such as digital literacy programs, secure and user-friendly platforms, and transparent AI-driven adjudication, are essential in safeguarding the universal access to justice. By addressing these challenges proactively, judicial systems can ensure that technological advancements enhance rather than restrict access to court and legal aid, reinforcing fairness, efficiency, and trust in the legal system.

3.2.2. The Right to Be Advised, Defended, and Represented: Expanded or Undermined?

The right to be advised, defended, and represented is a cornerstone of access to justice and a fundamental guarantee of a fair trial[501]. It ensures that individuals can rely on legal professionals to navigate complex legal proceedings, advocate on their behalf, and safeguard their rights. This right applies across all stages of judicial proceedings in both criminal and civil matters, thus reinforcing the principle that legal representation must be accessible and effective. However, as judicial systems integrate technological advancements, this right is simultaneously strengthened and threatened. While digital tools expand access to legal representation, the increasing reliance on AI in judicial processes, particularly in adjudication, raises critical concerns about diminishing human oversight and advocacy.

The right to be advised, defended, and represented is explicitly enshrined in Article 47 of the *EU Charter of Fundamental Rights*[502]. In contrast, Article 6 of the ECHR guarantees this right explicitly in criminal proceedings, but not in non-criminal cases[503]. However, the ECtHR has ruled that, in disputes related to civil rights or obligations, this right may also arise under Article 6(1) of the Convention[504]. The Court has emphasized that, despite the absence of an explicit provision for civil litigation, Article 6(1) may require states to provide legal assistance whenever necessary in order to ensure effective access to court. Legal aid may be necessary when national law mandates representation, or when a case is too complex for an individual to handle alone[505]. Thus, while not explicitly mandated under CoE law, the right to legal representation has been extended beyond criminal proceedings under certain circumstances.

An important aspect of this right is that the need to exercise it may arise at any stage of court proceedings, from initiation to the execution of a judgment, including appeals. Recognized as a crucial component of a fair trial, this right enables individuals to enforce their claims and protect their legal interests. It is closely linked to the right of access to court, as effective legal

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501 CJEU, C-305/05, *Ordre des barreaux francophones et germanophones and others v. Conseil des Ministres*, 26 June 2007, para. 31

502 Charter of Fundamental Rights of the European Union, OJ 2012 C 326.

503 European Convention for the Protection of Human Rights and Fundamental Freedoms of 3 September 1953.

504 See, for example, ECtHR, *Ringeisen v. Austria*, No. 2614/65, 16 July 1971, para. 94.

505 ECtHR, *Airey v. Ireland*, No. 6289/73, 9 October 1979, para. 26.

assistance can determine whether an individual can initiate proceedings and secure a fair trial[506]. However, this right is not absolute, and whether legal representation is necessary must be assessed on a case-by-case basis[507]. Courts consider factors such as the litigant's ability to present their case effectively, their background, prior legal experience, emotional involvement, and the complexity and public significance of the case[508]. Ultimately, ensuring access to legal representation is essential for upholding the fairness of judicial proceedings.

This principle is also firmly grounded in the jurisprudence of the Constitutional Court of Lithuania. The Court has consistently emphasized that the right to judicial protection under Article 30(1) of the Constitution entails not merely formal access to a court, but also real and effective defence. A crucial element of this is the right to be assisted by a lawyer, i.e., a legal professional who helps individuals defend their rights and legitimate interests[509]. The Court has held that this right must not be unduly restricted or rendered ineffective, and that the legislator is obliged to ensure that legal assistance is not only guaranteed *de jure*, but also accessible and functional *in practice*[510]. In this context, the introduction of opaque or autonomous AI systems must not compromise the individual's ability to engage a legal representative meaningfully, nor undermine the effectiveness of legal defence in court proceedings.

Technological advancements significantly enhance the ability of individuals to exercise their right to legal representation. Systems such as *LITEKO*, the Lithuanian e-services portal (e.teismas.lt), remote hearings, and asynchronous court processes remove the traditional barriers to legal assistance and foster a more equitable access to justice. The *LITEKO* court information system enhances the right to be advised, defended, and represented by providing a centralized access to case files, court schedules, and legal documentation. Lawyers can track case progress, review submissions, and prepare more effectively, ensuring timely and well-informed representation. The transparency afforded by such systems allows legal

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506 CJEU, C-305/05, *Ordre des barreaux francophones et germanophones and others v. Conseil des Ministres*, 26 June 2007, para. 31

507 ECtHR, *Steel and Morris v. the United Kingdom*, No. 68416/01, 15 February 2005, para. 61

508 ECtHR, *McVicar v. the United Kingdom*, No. 46311/99, 7 May 2002, para. 48

509 Ruling of 1 March 2019, No. 1/2018 of the Constitutional Court of the Republic of Lithuania.

510 Ruling of 19 March 2021, No. 10-A/2020 of the Constitutional Court of the Republic of Lithuania.

professionals to deliver high-quality advocacy while also enabling clients to remain informed and engaged in their cases. Similarly, the e-teismas.lt portal facilitates seamless interaction between the litigants, legal representatives, and courts by enabling document submission, application filing, and access to legal resources from any location. This significantly reduces logistical and financial burdens, particularly for individuals in remote areas or those facing mobility challenges. It has further been held by the *Constitutional Court of Lithuania* that the state is constitutionally obliged to ensure the provision of effective legal assistance, including legal consultation and representation, to vulnerable individuals who would otherwise lack access due to financial constraints. This obligation stems from the rights enshrined in Article 30 and Article 31 of the Constitution, as well as from the principle of the rule of law[511]. Digital tools, such as *LITEKO* and the e.teismas.lt portal, contribute to fulfilling this constitutional mandate by reducing barriers to legal services, streamlining communication, and improving transparency and participation in court proceedings.

Although systems, such as *LITEKO* and e.teismas.lt, have introduced clear advantages, their practical application can still present certain challenges. Legal professionals may encounter obstacles which complicate effective representation, for instance, difficulties with accessing documents submitted in the paper format before a lawyer joins a case, potential loss of access to electronic files following changes in the legal status (for example, transitioning from a legal assistant to an attorney), and occasional technical issues that may delay submissions or increase the risk of missing procedural deadlines. While these may appear to be minor technical or administrative issues, they can cumulatively pose a real risk to the effective exercise of the right to be advised, defended, and represented**.** Importantly, these challenges are not inherent to digitalisation itself, but nevertheless reflect shortcomings in the system design, interoperability, and regulatory clarity. In order to ensure that digital tools do not jeopardize this fundamental right, targeted measures must be taken in order to guarantee the continuity, reliability, and accessibility of legal information systems for all participants in judicial proceedings.

Remote hearings further enhance the right to be represented by eliminating geographical constraints and making legal participation more inclusive, particularly for vulnerable groups. Legal professionals can advocate for their clients through video conferencing platforms, thus ensuring continued representation even in emergencies, or when physical attendance is

[511] Ruling of 10 February 2022, No. 16-A/2020 of the Constitutional Court of the Republic of Lithuania.

impractical. Meanwhile, asynchronous court processes offer greater flexibility for the clients as well as for legal professionals, allowing submissions and legal arguments to be made outside the rigid court schedules. This flexibility is particularly valuable in complex cases, where legal teams require additional time to craft comprehensive legal strategies. By reducing logistical barriers, increasing transparency, and providing flexible representation options, these technological tools reinforce the role of legal professionals and improve ability of individuals to seek and receive legal assistance, ultimately advancing acess to justice. The right to a fair trial as well as the instruments for promoting the quality of justice must not be undermined but, on the contrary, must have their effects extended by IT, which does not constitute an end in itself but, rather, a means available to policymakers, professionals, and parties to proceedings[512].

While digital innovations have enhanced legal representation in many ways, the increasing reliance on AI systems in judicial processes presents profound risks to the right to be advised, defended, and represented. The deployment of AI-driven decision-making, particularly in adjudication, threatens to marginalize the role of human legal professionals and restrict avenues for meaningful advocacy and appeals. A fundamental aspect of the right to legal representation is the ability to engage with human decision-makers who can consider the nuances of legal arguments, interpret case-specific complexities, and exercise discretion. The introduction of autonomous AI in adjudication, however, risks eliminating this essential human interaction. AI-driven judicial systems may rely solely on data patterns and pre-programmed algorithms, thus reducing the opportunity for lawyers to present nuanced legal reasoning or appeal to the human sense of fairness and empathy.

The opacity of AI systems exacerbates these concerns. AI tools such as *COMPAS* and *Prometea* or China's *Smart Courts* system usually function as 'black boxes', where proprietary algorithms remain shielded from public scrutiny under trade secret or other legal protections. This lack of transparency makes it nearly impossible for legal professionals to challenge AI-generated decisions effectively. Without a clear understanding of how AI systems reach their conclusions, lawyers are unable to construct robust defence strategies, contest potentially biased or flawed outcomes, or ensure that their clients

[512] CEPEJ, Guidelines on how to Drive Change towards Cyberjustice: Stock-Taking of Tools Deployed and Summary of Good Practices, REF 020017GBR, 7 December 2016, available at: <https://rm.coe.int/16807482de#_Toc462148791> accessed 30 January 2025.

receive fair hearings. The potential replacement of human judges with autonomous AI adjudication further compounds these threats. Effective legal advocacy is not merely about applying rules mechanistically but also about interpreting circumstances through principles of justice, reasonableness, and fairness. The role of a judge extends beyond procedural decision-making to reconciling competing interests and defusing social tensions, and this is a function that AI cannot fulfil. After all, the delivery of justice is not only about resolving disputes in accordance with the established rules, but also about the 'art' of reconciling the interests of the different parties to a dispute and defusing social tensions[513]. The judge has a certain degree of discretion in the delivery of justice, since this delivery of justice is not merely a mechanical application of the rules of law, but also an assessment of certain circumstances of a more subjective nature, based on the principles of justice, reasonableness, and fairness. The absence of human discretion in adjudication would erode trust in the legal process and diminish the relational dynamics that are essential to effective advocacy.

The dual impact of technological advancements on the right to be advised, defended, and represented underscores the urgent need for judicial systems to adopt a balanced approach. While digital tools can expand access to legal representation, unchecked reliance on AI risks undermining fundamental legal protections. To mitigate these dangers, judicial systems must ensure transparency in AI-based decision-making, preserve human oversight in adjudication, and establish robust mechanisms for meaningful appeals. Legal professionals must remain central to the judicial process, and serve not only as advocates but as essential guarantors of fairness and justice. Thus, legal frameworks must evolve alongside technology to ensure that human legal advocacy remains integral to the justice system. By carefully navigating this landscape, policymakers can harness the benefits of digital advancements while safeguarding the fundamental right to be advised, defended, and represented in an era of increasing judicial automation.

[513] E. Tamošiūnienė, Ž. Terebeiza and A. Doržinkevič, 'The Possibility of Applying Artificial Intelligence in the Delivery of Justice by Courts' (2024) *Baltic Journal of Law & Politics*, *Vol. 17*, No. 1, pp. 207-222.

3.2.3. Judicial Independence and Impartiality: Reinforced or Threatened?

Four things belong to a judge: to hear courteously, to answer wisely, to consider soberly, and to decide impartially[514]

Judicial independence and impartiality of courts are *expressis verbis* enshrined both in the *Universal Declaration of Human Rights*[515] and in the *Charter of Fundamental Rights of the EU*[516]. While closely related and often assessed together, these principles serve distinct functions within the judicial system.

Judicial independence refers to the ability of courts and judges to function without undue influence from external forces, including political actors, governmental authorities, or private interests. This principle ensures that judges can make decisions solely based on the law and facts presented before them. The ECtHR has outlined several factors to determine whether a court is independent, such as the manner of appointment and term of the office of judges, the presence of safeguards against external pressures, and whether the court presents an appearance of independence[517]. Similarly, the CJEU emphasizes that judicial independence entails both external autonomy from political interference and internal impartiality, ensuring that judges maintain equal distance from all parties in a case[518]. Additionally, objectivity is essential, i.e., judges must have no interest in case outcomes beyond applying the rule of law[519].

One of the key aspects of judicial independence is institutional security, which includes guarantees against arbitrary removal or dismissal of judges. The ECtHR's decision in *Campbell and Fell v. the United Kingdom*[520] highlighted the importance of maintaining public trust in the judiciary by ensuring that courts operate without external interference. Additionally, the CJEU has stressed that judicial independence necessitates clear appointment

[514] F. P. Adams, *FPA Book of Quotations* (Funk & Wagnalls 1952), p. 466.
[515] Article 10
[516] Article 47
[517] ECtHR, *Parlov-Tkalčić v. Croatia*, No. 24810/06, 22 December 2009.
[518] CJEU, C-619/18, *European Commission v Republic of Poland*, 24 June 2019, CJEU, C-64/16, *Associação Sindical dos Juízes Portugueses*, 27 February 2018, CJEU, C-64/16, *Associação Sindical dos Juízes Portugueses*, 27 February 2018.
[519] CJEU, C-216/18 PPU, Minister for Justice and Equality (Deficiencies in the System of Justice), 25 July 2018.
[520] ECtHR, *Campbell and Fell v. the United Kingdom*, Nos. 7819/77 and 7878/77, 28 June 1984, para. 78.

and disciplinary procedures in order to prevent the judiciary from becoming a tool of political control[521].

Judicial impartiality, on the other hand, pertains to the judge's duty to remain neutral and free from personal bias when adjudicating cases. The *UN Human Rights Committee* identifies two dimensions of impartiality: subjective and objective[522]. The subjective test examines the judge's personal convictions and behaviour, that is, whether the judge held any personal prejudice or bias in a given case, whereas the objective test evaluates the tribunal itself and, *inter alia*, its composition, and is interested whether sufficient guarantees are offered to exclude any legitimate doubt in respect of its impartiality[523]. The ECtHR and the CJEU have both applied these tests to assess whether tribunals meet the standard of impartiality[524].

The ECtHR's case law underscores that even the appearance of bias can undermine public confidence in the judiciary. In *Kyprianou v. Cyprus*, the court ruled that a judge's personal conduct and expressed opinions during proceedings could cast doubt on impartiality, thus violating the right to a fair trial[525]. Similarly, conflicts of interest, personal relationships between judges and the parties involved[526], or pre-trial statements indicating bias[527] can lead to legitimate concerns about a judge's impartiality. Finally, in another case, the court evaluated acknowledgment of personal feelings following the actions of any of the parties appearing before them, the emphatic language used by the judges throughout their decision, and the expression of opinions about an applicant's guilt at early stages of a trial[528].

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[521] CJEU, C-216/18 PPU, Minister for Justice and Equality (Deficiencies in the System of Justice), 25 July 2018.

[522] Committee on Human Rights of the United Nations, General Comment No. 32 (2007).

[523] Department for the execution of judgments of the European Court of Human Rights (2020*), Independence and Impartiality of the Judicial System*, thematic factsheet, available at: <https://rm.coe.int/thematic-factsheet-independence-impartiality-eng/1680a09c19> accessed 30 January 2025.

[524] Committee on Human Rights of the United Nations, General Comment No. 32 (2007), Department for the Execution of Judgments of the European Court of Human Rights (2020*), Independence and Impartiality of the Judicial System*, thematic factsheet, available at: <https://rm.coe.int/thematic-factsheet-independence-impartiality-eng/1680a09c19> accessed 30 January 2025.

[525] ECtHR, *Kyprianou v. Cyprus*, No. 73797/01, 15 December 2005, para. 119.

[526] ECtHR, *Micallef v. Malta*, No. 17056/06, 15 October 2009, para. 102, ECtHR, *Pescador Valero v. Spain*, No. 62435/00, 17 June 2003, para. 27–28.

[527] ECtHR, *Lavents v. Latvia*, No. 58442/00, 28 November 2002.

[528] ECtHR, *Kyprianou v. Cyprus*, No. 73797/01, 15 December 2005, para. 129-130.

Together, judicial independence and impartiality serve as cornerstones of democratic legal systems, ensuring that courts function free from improper influence and remain committed to delivering fair and just decisions. By upholding these principles through strong institutional safeguards, transparent judicial appointments, and clear disciplinary frameworks, states reinforce public trust in the judiciary and the rule of law. The interplay between independence and impartiality underscores their mutual necessity: a truly independent judiciary cannot exist without impartial judges, and an impartial judiciary requires structural independence to function effectively.

In the Lithuanian legal system, judicial independence is established in Article 109 of the *Constitution of the Republic of Lithuania*, which states: "When administering justice, judges and courts shall be independent. When considering cases, judges shall obey only the law"[529]. In what has been described by Prof. Dr. Danutė Jočienė as a landmark decision shaping the constitutional understanding of judicial independence[530], the Constitutional Court, in its judgment of 6 December 1995, emphasized that the independence of judges and courts is not a privilege but one of their most important duties, arising from the constitutionally guaranteed human right to have an impartial arbiter in a dispute[531]. This position reflects the broader constitutional principle that judicial independence is not merely a structural safeguard, but a core obligation stemming directly from the right to a fair trial and forming an essential part of access to justice. As noted by Gintaras Goda *et al.*, judicial independence is an inseparable element of a democratic state governed by the rule of law and a precondition for the effective functioning of the judiciary. Without such independence – from political, societal, or party-related pressures – the very idea of justice is compromised[532].

Judicial impartiality, as a closely related principle, stems from Article 29 of the Constitution of the Republic of Lithuania, which provides that "All persons shall be equal before the law, courts, and other state institutions and

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[529] Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992, No. 220-0.

[530] D. Jočienė, 'Tarptautinės teisės ir Europos Sąjungos teisės įtaka Lietuvos Respublikos Konstitucinio Teismo oficialiajai konstitucinei doktrinai' [Impact of International Law and EU Law on the Official Constitutional Doctrine of the Constitutional Court of the Republic of Lithuania] (2022) *Vilnius University Open Series: Kelyje su Konstitucija.*

[531] Ruling of 6 December 1995, No. 101-2264 of the Constitutional Court of the Republic of Lithuania.

[532] G. Goda et al., 'Konstitucinio Teismo 2014–2022 metų jurisprudencijos apžvalga' [Overview of Jurisprudence of Constitutional Court, 2014–2022]. In: D. Jočienė (ed.), *Trisdešimt konstitucinės justicijos metų: tempore et loco* (Vilnius: Lietuvos Respublikos Konstitucinis Teismas, 2023), pp. 459–498, p. 462.

officials. Human rights may not be restricted; no one may be granted any privileges on the grounds of sex, race, nationality, language, origin, social status, belief, convictions, or views"[533]. In its jurisprudence interpreting Article 29 of the Constitution, the Constitutional Court has consistently held that individuals may neither be discriminated against nor granted privileges. The principle of equality would be violated if certain persons or groups were treated differently without differences of such nature and scope that unequal treatment could be objectively justified[534]. Moreover, in its decision of 11 January 2019, the Constitutional Court clarified that the list of grounds in Article 29(2) must be interpreted in conjunction with Article 29(1), which guarantees the general principle of equality before the law, courts, and public institutions. As such, the Court held that Article 29(2) cannot be understood as establishing an exhaustive list of prohibited grounds, as this would undermine the essence of the constitutional principle of equality enshrined in Article 29(1)[535]. This interpretation was reinforced in the ruling of 10 February 2020, where the Court expressly confirmed that age-based restrictions on rights may constitute unconstitutional discrimination, even though age is not explicitly enumerated among the grounds traditionally recognized in constitutional jurisprudence[536]. These developments reflect a progressive and evolving constitutional doctrine which reinforces the judiciary's duty to ensure both actual and perceived impartiality. This obligation is grounded in a flexible and adaptive understanding of equality, more suitable for responding to the challenges posed by technology-driven tools.

While constitutional and international standards establish a robust framework for judicial independence and impartiality, the increasing integration of technology into judicial practice introduces new dimensions to the ways how these principles are upheld – or potentially compromised. As digital tools become more embedded in courts, they raise complex questions about whether these foundational obligations can be meaningfully preserved or risk being gradually eroded. Technological advancements significantly enhance the independence and impartiality of judges by fostering transparency, accountability, and consistency in judicial processes. For example, the *LITEKO* court information system promotes impartiality

[533] Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992, No. 220-0.

[534] See, for example, the ruling of 25 January 2017, no. 3/2016, and the ruling of 4 July 2017, no. 10/2016 of the Constitutional Court of the Republic of Lithuania.

[535] Ruling of 11 January 2019, No. 16/2016 of the Constitutional Court of the Republic of Lithuania.

[536] Ruling of 10 February 2020, No. 16/2018 of the Constitutional Court of the Republic of Lithuania.

through features like electronic case allocation, which randomly assigns cases to judges, preventing manipulation and ensuring that cases are assigned fairly and objectively. Electronic case allocation, which randomly assigns cases, ensures that judges are not 'cherry-picked' to hear particular cases, and the electronic case management system can provide further oversight by identifying irregularities[537]. Additionally, the *LITEKO* court information system facilitates the public announcement of procedural decisions online and generates statistical reports, thus promoting transparency and reducing opportunities for corruption.

The 'e.teismas.lt' portal further supports impartiality by standardizing document submission and procedural workflows, thereby minimizing human intervention and reducing the risk of favoritism. By making case information equally accessible to all parties, the portal ensures fairness and bolsters judicial independence. Its transparency empowers the litigants by providing consistent access to case-related information, thus reducing the likelihood of biased treatment.

Remote hearings and asynchronous court processes add another layer of impartiality by creating neutral, controlled environments for judicial proceedings. Remote hearings mitigate risks of undue influence or inappropriate behavior in physical settings, as interactions occur in a secure digital space where all activities can be recorded and monitored. Asynchronous processes support impartiality by allowing judges to independently review evidence and deliberate without real-time pressure, thus ensuring that decisions are based solely on documented facts. These technological innovations not only safeguard impartiality but also enhance judicial efficiency and accessibility, ensuring fair hearings regardless of logistical constraints.

Another critical aspect of these systems is their role in combating corruption. The randomization of case assignments and the public disclosure of court decisions minimize opportunities for undue influence. Furthermore, electronic case management systems provide an auditable trail of decisions and actions, making it easier to detect and address irregularities. Certain system modules are specifically designed to enhance the impartiality and independence of judges, while the transparent publication of procedural decisions reinforces accountability and builds public trust in the judiciary.

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[537] M. Zalnieriute, 'Technology and the Courts: Artificial Intelligence and Judicial Impartiality' (2021) Submission to Australian Law Reform Commission Review of Judicial Impartiality, available at: <http://dx.doi.org/10.2139/ssrn.3867901> accessed 30 January 2025.

At the same time, it is important to recognize that technology can also be viewed as an opportunity to strengthen impartiality by addressing one of the most persistent challenges of human adjudication, specifically, unconscious bias. As noted earlier in this dissertation (Section 2.2.4.2), judicial decision-making is inevitably shaped by psychological and social factors such as hindsight bias, the gambler's fallacy, or anchoring, as well as by shared cultural backgrounds and personal predispositions. To this should be added new forms of bias that arise from the use of technology in decision-making, including automation bias[538] and cognitive anchoring[539] to technology-generated suggestions. These factors often operate below the level of awareness, making them difficult for judges themselves to control or correct. As some scholars have stressed, the real question is not whether humans or AI are more impartial, but what safeguards are needed to prevent unacceptable bias. For judges, these include evidentiary rules and appeal mechanisms, whereas, for machines, the focus must be on what outcomes are being optimized and how such choices are made. If properly designed, AI tools could even be used to detect and counter human bias, by moving the judiciary beyond the 'impartial enough' status quo[540]. Within this debate, some scholars have gone further, by arguing that AI judges may, in principle, be more impartial than human judges. Such systems could be designed to exclude protected attributes from their reasoning, tested against hypothetical scenarios to detect disparate treatment, and shielded from extraneous influences, such as political pressure or personal relationships. From this perspective, the potential of AI lies not only in efficiency, but also in fostering impartiality that human judges may find difficult to consistently maintain[541]. Still, this promise is conditional. In the legal prediction context, it has been observed that if the past case data upon which a machine learning algorithm is trained are systematically biased, the algorithm will tend to replicate those distortions,

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[538] M. L. Cummings, 'The Social and Ethical Impact of Decision Support Interface Design' (2004), available at: https://citeseerx.ist.psu.edu/document?doi=a9b3ec436508ebfa40f3a3f5b59231bece4f3e34 accessed 7 February 2025.

[539] B. M. Barry, *How Judges Judge: Empirical Insights into Judicial Decision-Making* (Informa Law, 2023).

[540] F. Bell et al., *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (The Australasian Institute of Judicial Administration Incorporated, Australia, published June 2022; revised and republished December 2023).

[541] E. Volokh, 'Chief Justice Robots' (2019) *68 Duke Law Journal*, pp. 1135-1192.

and end up producing inaccurate or unfair results in future cases[542]. The possibility of 'impartiality by design' or 'impartiality by testing' remains dependent on rigorous oversight, transparent methodology, and continual monitoring. Otherwise, AI's claim to neutrality risks becoming another 'fiction of impartiality', echoing the same criticisms that legal realists once directed at human judges. By integrating these technological safeguards, judicial systems can better uphold democratic values, ensuring that independence and impartiality remain resilient against external pressures. These continuous improvements in the digital court infrastructure help to strengthen the rule of law and maintain public confidence in the judiciary.

While technological advancements bring significant benefits to judicial processes, they also introduce emerging risks to judicial independence and impartiality. As courts increasingly integrate technology, particularly AI-driven decision-making tools, these innovations present new and complex challenges to fundamental judicial principles. The increasing use of technology-based decision-making tools in judicial systems introduces new and complex challenges to these two foundational principles.

The intersection of judicial impartiality and AI tools raises three key concerns. First, AI systems may be used in ways that reinforce historical biases and structural discrimination. Plato wrote, "A judge uses his mind to rule the mind. So, it is not allowable for a judge's mind, from its earliest years, to be brought up in close contact with minds which are no good, or for it to have done a complete course in all forms of wrongdoing for itself, so that it can readily draw on its own experience in dealing with the wrongdoings of others"[543]. But what happens when a judge's decisions are influenced by an AI system trained on biased data? If a judge's mind is "brought up in close contact" with biased algorithms, does it not risk internalizing these biases in its decision-making?

A striking example is the *COMPAS* risk assessment software, widely used in the United States to predict recidivism. It has faced criticism for racial bias, with studies showing that *Black* defendants are twice as likely as *White* defendants to be misclassified as 'high risk', raising concerns about algorithmic discrimination and fairness[544]. These discrepancies did not arise

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[542] H. Surden, 'Machine Learning and Law' (2014) *89 Washington Law Review 87*, pp. 87-115 (p. 106).

[543] Plato, *The Republic* (Cambridge University Press, 2003), pp. 100–101.

[544] F. Bell et al., *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (The Australasian Institute of Judicial Administration Incorporated, Australia, published June 2022; revised and

from an explicit design choice to discriminate but were a consequence of historical biases embedded in the training data and the way the algorithm weighed different risk factors. Stereotypes and discriminatory patterns in the training data shape the recommendations these systems generate, leading to outcomes that may unfairly disadvantage certain groups. This creates a cycle where biased data lead to biased results, which then reinforce bias in the judicial process. If a judge relies on such a system for guidance, their decision-making is already influenced before they even begin their independent assessment. The *COMPAS* case illustrates a broader concern: judicial AI systems, even when designed with neutral intent, risk amplifying systemic biases. As the CEPEJ has correctly pointed out, such tools can perpetuate the already existing inequalities in the criminal justice system, ultimately legitimizing problematic policies rather than correcting them[545]. This raises a second concern, namely, whether AI undermines the fundamental principle of equality before the law.

Second, AI systems may undermine fundamental principles of equality before the law by treating different cases as the same. Machine learning algorithms prioritize patterns and statistical correlations over nuanced case-specific factors, which may lead to uniform but inequitable outcomes. This mechanistic approach risks oversimplifying the complexity of legal issues and disregarding context-sensitive details crucial for fair adjudication. Impartiality demands that every case should be judged on its own merits, without prejudice stemming from irrelevant factors such as race, gender, or socioeconomic background. However, *COMPAS* incorporates variables such as age, gender, and even whether the defendant's parents still live together. Even if the inclusion of such variables, such as gender, as was argued in the case of *COMPAS*, can be statistically justified, it does not mean that differentiating between individuals based on these factors aligns with the principle of equality before the law[546].

Beyond known biases such as racial or gender-based discrimination, AI tools may embed new forms of biases that are not as easily traceable or even

republished December 2023).; J. Dressel and H. Farid, 'The Accuracy, Fairness, and Limits of Predicting Recidivism' (2018) *Science Advances*, *4*(1), p. 1.

545 European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment, Adopted by CEPEJ during its 31st Plenary Meeting, Strasbourg, 3–4 December 2018.

546 F. Bell et al., *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (The Australasian Institute of Judicial Administration Incorporated, Australia, published June 2022; revised and republished December 2023).

imaginable. Unlike human biases, which can be identified and challenged through established legal safeguards, AI biases are often concealed within complex algorithms and vast datasets. These biases may emerge from the way AI systems weigh different factors, the manner in which the training data are selected, or the subtle correlations that machine learning models detect but humans cannot rationalize. If left unchecked, such biases could silently erode judicial impartiality, thus reinforcing systemic disparities without any clear point of accountability.

Even if AI bias could be eliminated, another problem persists: the risk of reducing judicial discretion to mere automation. Adjudication is not just about applying rules as it involves moral reasoning, empathy, and context-sensitive decision-making. As the UN Development Programme has observed in the guidelines "*e-Justice Digital Transformation to Close the Justice Gap*"[547], automating sentencing with AI risks treating people as mere data points, and thus stripping justice of its human dimension. Discretion on the part of decision-makers can help curb the disproportionate impact of legal consequences, acknowledge systemic disadvantage, and address resource disparities and opportunities for growth and rehabilitation. While a completely discretionary system runs a risk of bias and discrimination, a system with no discretion will produce rigid, harsh results.

Similarly, when discussing adjudication in general, legal scholars emphasize that the administration of justice is not merely the resolution of a legal problem but, actually, a social process, where the public interest is served, and where discord between the parties to a dispute is addressed. These elements are the cornerstones of public trust in the courts[548]. When using technology to assist judicial decision-making, especially in sensitive cases, it should also ensure that, even when the decision is made according to the established norms and by a program in a completely unbiased and impartial way, the resulting recommendation is, among other things, proportionate and does not reflect systemic disadvantages.

Ultimately, if AI is to assist rather than supersede judicial reasoning, it must enhance, rather than undermine, the core values of justice – impartiality, equality, and human discretion.

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[547] The United Nations Development Programme E-Justice: Digital Transformation to Close the Justice Gap, 2022, available at: <https://www.undp.org/sites/g/files/zskgke326/files/2022-06/E%20justice-Report%2005.pdf> accessed 30 January 2025.

[548] E. Tamošiūnienė, Ž. Terebeiza and A. Doržinkevič, 'The Possibility of Applying Artificial Intelligence in the Delivery of Justice by Courts' (2024) *Baltic Journal of Law & Politics*, *Vol. 17*, No. 1, pp. 207-222, p. 218.

The principle of judicial independence ensures that judges can exercise discretion freely, without undue influence. However, the integration of AI tools in judicial decision-making challenges this principle. The 'black-box' nature of AI-generated recommendations places judges in a difficult position: while judicial independence requires discretion, reliance on opaque AI tools embeds external algorithmic influences into legal reasoning. This risk is exacerbated when AI-generated recommendations carry implicit authority, leading judges to accept them uncritically.

A key concern is automation bias, a well-documented cognitive tendency where individuals defer to automated recommendations, even in the face of contradictory evidence. Judicial decision-making often involves quantification under conditions of uncertainty[549], a challenge that deepens when AI systems assist in adjudication. As R. A. Posner noted, judges have always dealt with technological advancements, but earlier innovations, such as the steam engine, railroad, automobile, and television, were intuitive or easily explained[550]. In contrast, AI-driven systems operate as "black boxes," making their logic difficult to scrutinize. This opacity creates a new challenge: judges who do not fully understand how AI models process legal information may unknowingly incorporate algorithmic biases into their rulings. This lack of transparency raises serious fairness concerns. Since judicial independence requires judges to exercise discretion free from external constraints, the inability to scrutinize AI's internal logic risks undermining their autonomous decision-making and raises serious concerns about the integrity of judicial reasoning.

This challenge is further reinforced by trade secret protections, which prevent judges from questioning AI's internal workings. For instance, in *State of Wisconsin v. Loomis*, the court ruled that the *COMPAS* risk assessment software, developed by a private company, is protected under intellectual property rights, which means that its algorithmic processes are bound to remain undisclosed[551]. As a result, neither judges nor litigants can fully understand how *COMPAS* generates its risk scores, thus limiting their ability to assess the tool's reliability or fairness. This opacity not only constrains individual judicial discretion but may also have implications for institutional independence if courts become structurally reliant on proprietary AI tools.

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[549] W. H. Gravett, 'Judicial Decision-Making in the Age of Artificial Intelligence'. In: M. C. Compagnucci et al. (eds.), *Multidisciplinary Perspectives on Artificial Intelligence and the Law* (Springer, 2023), pp. 281.

[550] R. A. Posner, *How Judges Think* (Harvard University Press, 2008).

[551] The Wisconsin Supreme Court, *State of Wisconsin v. Loomis*, 881 NW2d (2016).

As a result, judges cannot question the methodology, accuracy, or fairness of AI-generated risk assessments, effectively placing critical aspects of judicial reasoning beyond their oversight. This lack of transparency reinforces the black-box problem, where judicial decisions risk being shaped by opaque algorithmic processes that cannot be fully explained, challenged, or adjusted. The problem is worsened by judicial over-reliance on AI tools, as judges increasingly default to algorithmic outputs in the absence of accessible explanations or verifiable reasoning. The perceived objectivity and efficiency of AI-driven recommendations – whether from *COMPAS* or other AI-assisted adjudication tools – further reinforce this dependence, making judges increasingly reluctant or even unable to critically assess the system's conclusions. Judges who rely on AI-generated draft rulings or automated assessments may increasingly defer to them as authoritative, which would gradually diminish their own discretionary role in decision-making.

AI-driven decision-making tools also raise concerns about judicial autonomy at an institutional level. For instance, the Supreme Court of Wisconsin concluded that *COMPAS* is merely one tool available to a court at the time of sentencing, and a court is free to rely on portions of the assessment while rejecting other portions. If used properly with an awareness of the limitations and cautions, it does not violate a defendant's right to due process[552]. However, questions remain about the extent to which judges adhere to such recommendations, especially, as there are known examples where sentencing judges have overturned plea deals and imposed longer sentences on the convicted person because *COMPAS* produced very high potential recidivism scores[553]. While AI recommendations are technically non-binding, behavioral research indicates that humans rarely override algorithmic suggestions, thus effectively embedding AI-generated conclusions into final decisions.

An additional challenge is the increasing use of AI to ensure consistency in court decisions. For example, *Prometea* accelerates judicial processes by suggesting solutions based on past legal reasoning[554]. While this can enhance

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[552] The Wisconsin Supreme Court, *State of Wisconsin v. Loomis*, 881 NW2d (2016).

[553] M. Zalnieriute and F. Bell, 'Technology and the Judicial Role'. In: G. Appleby and A. Lynch (eds.), *The Judge, the Judiciary and the Court: Individual, Collegial and Institutional Judicial Dynamics in Australia* (Cambridge University Press, 2020).

[554] J. G. Corvalán, 'Prometea: Artificial Intelligence to Transform Justice and Public Organizations' (2020), 6 *International Journal of Digital and Data Law*, available at: <https://court-management.in/paper-upload/78-Prometea.pdf> accessed 9 February 2025.

efficiency, it also risks influencing judges to accept AI-generated recommendations without fully scrutinizing their applicability to the specific case at hand, thereby compromising their impartiality. Similarly, China's *Smart Courts* system takes a more active role in shaping judicial behavior by issuing 'abnormal judgment warnings' when a ruling deviates from the rulings of prior cases[555]. This kind of algorithmic feedback introduces external influence into judicial reasoning, subtly pressuring judges to align their decisions with AI-driven assessments rather than independently evaluating the legal and factual nuances of a case. This form of algorithmic monitoring may lead judges to avoid 'decisions that stray from the mean[556]', thus reinforcing conformity to AI-generated expectations rather than fostering case-specific judicial reasoning.

Although AI tools like *COMPAS*, *Prometea* or China's *Smart Courts* system are designed to assist rather than replace judges, by merely offering risk predictions or judicial recommendations, research in behavioral economics and cognitive psychology has demonstrated that humans rarely override algorithmic suggestions[557]. Consequently, it is not unthinkable that AI-generated recommendations can significantly shape judicial reasoning and ultimately turn into final decisions. Even if subsequent, more relevant evidence contradicts the AI's output, judges may default to algorithmic conclusions due to the perceived objectivity and efficiency of these tools, rather than independently reassessing the case. Accordingly, such a process may lend itself to injustice if and where procedures eliminate the possibility of fresh evaluation of evidence[558].

To safeguard judicial independence and impartiality in the age of AI, several safeguards must be implemented. First, AI systems used in judicial contexts must be transparent and open to scrutiny. Judges must understand how these systems function, along with their limitations, and the potential biases these systems carry. After all, when an AI assistant supports a judge in the decision-making process, the human judge has to clarify why the AI system's outcome convinces him or her, and give a proper, legal justification

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[555] B. M. Barry, *How Judges Judge: Empirical Insights into Judicial Decision-Making* (Informa Law, 2023).

[556] N. Wang and M. Yuan Tian, 'Intelligent Justice: Human-Centered Considerations in China's Legal AI Transformation', (2022) 5, *Digital Medicine 351*, available at: <https://doi.org/10.1038/s43681-022-00202-3> accessed 9 February 2025.

[557] R. H. Thaler, 'Mental Accounting Matters' (1999) *Journal of Behavioral Decision Making*, *12*(3), pp. 183–206.

[558] B. M. Barry, *How Judges Judge: Empirical Insights into Judicial Decision-Making* (Informa Law, 2023) 18.

in accordance with the standards of a reasoned decision[559]. If an AI system influences a judge's reasoning, the judge must be able to clarify why the AI system's outcome is convincing and provide a proper, legal justification in accordance with the standards of a reasoned decision. In comparison, judges would not accept or tolerate relying on expert evidence if the expert were not required to provide qualifications or demonstrable expertise, an explanation of reasoning or methodology, and assurance of the reliability of their evidence[560].

Second, AI systems must adhere to strict fairness standards, thus ensuring that training data is free from biases that could lead to discriminatory outcomes. Judges must also have the ability to meaningfully deviate from AI-generated recommendations, supported by clear guidelines that emphasize judicial autonomy and accountability.

Finally, the broader legal community must address the inherent tension between proprietary AI systems and the public nature of justice. Judicial decisions affect fundamental rights, and the mechanisms influencing these decisions cannot remain shielded by intellectual property protections. Without transparency and accountability, the use of AI tools risks eroding public trust in the judiciary and undermining the very principles they are meant to uphold.

In conclusion, judicial independence and impartiality are foundational to the rule of law and access to justice. While AI systems in judicial decision-making offer potential benefits, they also introduce risks that must be critically evaluated. The opacity, bias, and lack of contextual judgment associated with AI systems challenge the fundamental principles of judicial impartiality and independence. If autonomous AI systems were to replace judges, these risks would be magnified, further undermining public trust in the judiciary. To preserve fairness, transparency, and accountability, human judges must remain central to the judicial process, equipped with the knowledge and discretion to critically assess AI-generated recommendations rather than deferring to them uncritically.

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[559] J. Ulenaers, 'The Impact of Artificial Intelligence on the Right to a Fair Trial: Towards a Robot Judge?' (2020) *Asian Journal of Law and Economics*, *Vol. 11*, issue 2, pp. 1-38.

[560] M. Zalnieriute and F. Bell, 'Technology and the Judicial Role'. In: G. Appleby and A. Lynch (eds.), *The Judge, the Judiciary and the Court: Individual, Collegial and Institutional Judicial Dynamics in Australia* (2021), pp. 116-142.

3.2.4. Challenges to Fairness, Judicial Reasoning, and Effective Remedies

The fairness of proceedings encompasses a number of elements that are not immediately apparent from the wording of the relevant provisions, but have been extensively developed in the case-law of the ECtHR. While the right of access to a court has already been addressed in the previous section, it is important to emphasize that fairness of proceedings under Article 6 ECHR and Article 47 CFR encompasses additional elements. These include the principle of equality of arms, the right to adversarial proceedings, the obligation to provide reasoned judgments, and the guarantee of execution of final decisions. Both the ECtHR and the CJEU agree that equality of arms is one of the most important principles to be upheld in order for a hearing to be deemed fair. In a number of cases, the ECtHR declared that the principle of equality of arms requires that each party must be afforded a reasonable opportunity to present their case under conditions that do not place this party at a substantial disadvantage vis-à-vis their opponent[561]. The ECtHR has further clarified that the right to an adversarial trial requires that parties should be able to know and comment on the observations and evidence presented by the other party[562]. The CCJE observed that clear reasoning and analysis are basic requirements in judicial decisions and an important aspect of the right to fair trial[563]. By citing some cases of the case-law of the ECtHR, it seconded that, in order to respect the principle of fair trial, the reasoning should demonstrate that the judge has really examined all the main issues which have been submitted to the judge[564]. In another case, the CJEU further detailed that the right to a fair trial requires that all judgments be reasoned to enable the defendant to see why the judgment has been pronounced against him/her/them, and to bring an appropriate and effective appeal against it[565]. Whereas the ECtHR emphasized that courts are not obliged to provide a

[561] See, for example, ECtHR, *De Haes and Gijsels v. Belgium*, No. 19983/92, 24 February 1997; ECtHR, *the Ankerl v. Switzerland*, No. 17748/91, 10 December 1990 of 23 October 1996, Reports 1996-V, pp. 1565-66, para. 38.

[562] ECtHR, *Ruiz-Mateos v. Spain*, No. 12952/87, 23 June 1993, para. 63; see also paras. 63–68

[563] Council of Europe, CCEJ (2008), Opinion No. 11 on 'The Quality of Judicial Decisions', 18 December 2008.

[564] ECtHR, *Boldea vs. Romania*, No. 19997/02, 15 February 2007, para. 29; ECtHR, *Helle vs. Finland*, No. 20772/92, 19 February 1997, para. 60.

[565] CJEU, C-619/10, *Trade Agency Ltd v. Seramico Investments Ltd*, 6 September 2012, para. 53

detailed answer to every argument[566], however, if a submission is fundamental to the outcome of the case, the court must then specifically deal with it in its judgment[567]. Finally, the ECtHR noted that execution of a judgment must be regarded as an integral part of the right to a fair hearing, as otherwise the right would be illusory if the judicial decision remained inoperative to the detriment of one party[568].

One of the most pressing concerns regarding AI tools in judicial contexts is the 'black-box' problem, wherein neither judges, litigants, nor even the creators of the software can fully understand or explain how decisions are made. This issue is exacerbated by the intellectual property protections enjoyed by many AI systems, particularly those developed by private entities. For example, *COMPAS*, a risk assessment tool developed by a private company, operates under trade secret regulations, preventing disclosure of its algorithms and weighting criteria to both judges and litigants[569]. Similarly, a 2018-dated study highlighted that the use of AI algorithms in European judicial systems remains primarily a private-sector commercial initiative[570], raising additional concerns about their transparency. The opacity of such systems limits the judges' ability to critically evaluate and justify AI-influenced decisions. Furthermore, it threatens the fairness of proceedings by denying litigants the opportunity to assess, understand, or effectively challenge AI-generated recommendations, thereby compromising the adversarial nature of the justice system.

For litigants, the inability to access or understand the criteria used to generate risk scores or other AI-driven recommendations creates a significant disadvantage. Where AI systems generate evidence, such as *COMPAS* risk assessments used in some U.S. courts, litigants lack the information needed to challenge their accuracy or fairness. Without knowledge of the factors influencing these risk scores or their impact on judicial assessments, litigants are deprived of any meaningful opportunity to contest them. Consequently, procedural fairness is jeopardized. Additionally, this raises the question of

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566 See, for example, ECtHR, *García Ruiz v. Spain*, No. 30544/96, 21 January 1999, para. 26; ECtHR, Van de Hurk v. the Netherlands, No. 16034/90, April 1994, para. 61.

567 N. Mole and C. Harby, *The Right to a Fair Trial: A Guide to the Implementation of Article 6 of the European Convention on Human Rights* (Council of Europe, 2006), p. 8.

568 ECtHR, *Hornsby v. Greece*, No. 18357/91, 19 March 1997, para. 40.

569 The Wisconsin Supreme Court, *State of Wisconsin v. Loomis*, 881 NW2d (2016).

570 European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment, Adopted by CEPEJ during its 31st Plenary Meeting, Strasbourg, 3–4 December 2018.

whether litigants can meaningfully influence the inputs to ensure that AI systems properly account for evidence and arguments presented in court[571].

Moreover, the use of AI in courts can make things less fair between the parties. These tools might help people who are good with technology, but they can make it harder for those who struggle to use digital systems. This 'digital divide' undermines the principle of equality of arms, as certain parties may find themselves disadvantaged simply due to technological literacy disparities[572]. The judicial system must ensure that individuals are not left to navigate AI-generated evidence alone, and must provide adequate support, including legal assistance wherever necessary. Ensuring procedural fairness requires proactive measures to address these disparities, including making AI systems and their methodologies more accessible and transparent. Related concerns arise in the context of remote court hearings, where basic procedural safeguards may not be fully upheld. For example, Article 192 of the *Lithuanian Code of Civil Procedure*[573] sets out key requirements for witness examination, including separate questioning, proper identification, and the administration of an oral oath, which can be difficult to ensure during virtual proceedings. If these guarantees are not observed, particularly when witness testimony is critical to the case, the fairness and transparency of the hearing may be compromised. While such issues are not AI-specific, they exemplify the broader risks to procedural fairness introduced by digital transformation in adjudication.

The CEPEJ has stressed the importance of ensuring that litigants and legal professionals have access to sufficient quantitative and qualitative information about AI-generated decisions. In adversarial proceedings, transparency is essential to allow litigants to challenge all evidence presented against them[574]. Preserving AI-generated recommendations under trade secrets contravenes this principle, as it denies the parties concerned the ability to scrutinize and contest the validity of AI-driven outputs. Additionally, the

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[571] F. Bell et al., *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (The Australasian Institute of Judicial Administration Incorporated, Australia, published June 2022; revised and republished December 2023).

[572] J. Ulenaers, 'The Impact of Artificial Intelligence on the Right to a Fair Trial: Towards a Robot Judge?' (2020) *Asian Journal of Law and Economics*, *Vol. 11*, issue 2, pp. 1-38.

[573] Code of Civil Procedure of the Republic of Lithuania, *Valstybės žinios*, 2012, No. 36-1341.

[574] J. Ulenaers, 'The Impact of Artificial Intelligence on the Right to a Fair Trial: Towards a Robot Judge?' (2020) *Asian Journal of Law and Economics, Vol. 11, issue 2*, pp. 1-38.

perceived neutrality of AI systems makes it harder to identify and prove biases embedded within them, as many stakeholders assume that technology is inherently objective. *Prometea* and China's *Smart Courts* system exemplify this issue: the inability for a person to know how a system came to a specific recommendation could result in the process being unfair in terms to effectively appeal such a decision, notwithstanding whether the court deviated from the generated outcome or not.

The right to a reasoned judgment, which is a fundamental safeguard of fair proceedings, faces particular challenges in the context of AI-assisted adjudication. Litigants must be able to comprehend the reasoning behind judicial decisions to effectively appeal them. However, when judges rely on opaque AI systems, they may lack the necessary information to justify their reliance on these tools. This issue became evident in *State of Wisconsin v. Loomis*, where the Supreme Court of Wisconsin upheld the use of *COMPAS* despite its opacity, by reasoning that judicial discretion remained intact[575]. Yet, in practice, judges frequently defer to AI-generated risk assessments. This was demonstrated in the sentencing of Paul Zilly in 2013: a person was convicted of stealing a push lawnmower and some tools, the prosecutor recommended a year in county jail along with follow-up supervision, and his lawyer agreed to a plea deal. However, after stating that: "When I look at the risk assessment <…> it is about as bad as it could be" (notably, *COMPAS* had rated Zilly as a high risk for future violent crime and a medium risk for general recidivism), the presiding judge James Babler overturned the plea deal that had been agreed on by the prosecution and defense and imposed two years in state prison and three years of supervision[576]. Such cases illustrate how AI-generated risk scores, though not directly determining outcomes, exert a powerful influence on judicial decisions – even when their underlying logic remains inaccessible.

This concern is echoed in the jurisprudence of the Constitutional Court of Lithuania. According to Article 109(1) of the Constitution[577], courts are required not only to issue decisions formally, but also to base them on clear, objective, and fair reasoning consistent with the constitutional principles of justice, fairness, and proportionality[578]. Justice delivered merely in form (such

[575] The Wisconsin Supreme Court, *State of Wisconsin v. Loomis*, 881 NW2d (2016).
[576] Julia Angwin et al., 'Machine Bias' (ProPublica, 2016), available at: <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> accessed 30 January 2025.
[577] Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992, No. 220-0.
[578] Ruling of 19 May 2022, No. 8/2021 of the Constitutional Court of the Republic of Lithuania.

as when the content of a judgment cannot be explained or understood) does not meet the standard of justice protected by the Constitution[579]. Accordingly, the use of decisions based on unexplainable AI models poses a risk of violating the constitutional obligation to ensure not declarative, but genuine justice.

Even though proponents argue that the day should come when one will be able to feed a set of facts to a machine that has cases, rules of law, and reasoning rules stored in it, and, on that day, the machine will then be able to lay out, step by step, the reasoning process by which one may be able to arrive at a conclusion[580], before such advancements are realized, safeguards must be implemented to ensure that AI systems do not perpetuate discrimination, and that the criteria and weighting behind their outputs are disclosed to both judges and litigants. Even though the *Loomis* court rejected claims that reliance on *COMPAS* violated due process, the inability to contest or properly scrutinize AI-generated risk assessments is inconsistent with the requirement of fairness in judicial proceedings.

The use of AI in adjudication autonomously – without meaningful human oversight – poses a direct threat to judicial fairness. Fairness requires transparency, equality of arms, and reasoned judgments, none of which can be fully ensured by autonomous AI systems. Operating as opaque 'black boxes', such systems fail to provide accessible explanations for their decisions, preventing litigants from understanding or challenging the outcomes. This undermines both the adversarial principle and the right to appeal. Furthermore, disparities in technological expertise and resources between the parties involved exacerbate inequality, as those unable to contest AI-generated evidence are placed at a procedural disadvantage. Without human judges exercising contextual judgment, these systems jeopardize fundamental rights and erode trust in the judiciary. As rightly noted by V. Mizaras, a critical aspect of judicial legitimacy lies in the perception that judgments are rendered by a fellow human being, capable of empathy and understanding. Without this human presence, public confidence in the justice system may be severely diminished[581].

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[579] Ruling of 7 November 2024, No. 5/2024 of the Constitutional Court of the Republic of Lithuania.

[580] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press, 2019), p. 281.

[581] V. Mizaras, 'Artificial Intelligence and the Right to a Fair Trial' (ECHR, 31 January 2025), available at: <https://www.echr.coe.int/documents/d/echr/speech-20250131-mizaras-jy-eng> accessed on 5 May 2025.

To safeguard fairness, AI in adjudication must remain a supportive tool rather than a determinative authority, with human judges retaining full oversight and responsibility for their decisions. AI-generated recommendations should never replace the judge's duty to provide a reasoned judgment that is legally and factually grounded. Transparency measures, such as ensuring the comprehensibility of AI-generated outputs, enhancing judicial education on AI technologies, and establishing mechanisms to contest AI-driven recommendations, are essential to safeguarding adversarial proceedings, equality of arms, and the right to a reasoned judgment.

The right to an effective remedy is a core element of access to justice, guaranteeing individuals effective judicial protection in connection with high structural standards of an independent tribunal established by law and procedural standards of an access- and merits-related adjudication of a dispute[582]. According to Article 13 of the ECHR, everyone whose rights and freedoms, as set forth in the Convention, are violated shall have an effective remedy before a national authority notwithstanding that the violation has been committed by persons acting in an official capacity[583]. The object of Article 13 is to provide a means whereby individuals can obtain relief at the national level for violations of their Convention rights before having to set in motion the international machinery of complaint before the ECtHR[584]. The provision's purpose is to enable individuals to seek redress at the national level, thereby reducing the need to activate the international complaint mechanism before the ECtHR. In essence, Article 13 obliges states to ensure that human rights are primarily protected within their own legal systems. The ECtHR has emphasized that effective remedies must exist in law and in practice, be capable of directly addressing the alleged violation, and be accessible and enforceable[585]. Article 47 of the *EU Charter of Fundamental Rights* states that everyone whose rights and freedoms guaranteed by the law of the Union are violated has the right to an effective remedy before a tribunal in compliance with the conditions laid down in this Article[586]. The CJEU has confirmed that this right is a general principle of the EU law, rooted in the constitutional traditions common to the Member States and derived from

[582] W. Piątek, 'The Right to an Effective Remedy in European Law: Significance, Content and Interaction' (2019) *China-EU Law J 6*, pp. 163–174.
[583] European Convention for the Protection of Human Rights and Fundamental Freedoms of 3 September 1953.
[584] ECtHR, *Kudła v. Poland*, No. 30210/96, 26 October 2000, para. 152.
[585] ECtHR, *Rotaru v. Romania*, No. 28341/95, 4 May 2000.
[586] Charter of Fundamental Rights of the European Union, OJ 2012 C 326.

Articles 6 and 13 ECHR[587]. The CJEU has further clarified that this right includes the ability to challenge measures that are contrary to the EU law before a competent court[588]. To conclude, the right to an effective remedy is a human right, guaranteeing the possibilities for a person whose rights have been violated to seek remedy directly at the national level, rather than the international level. Together, it obliges the states to have sufficient mechanisms protecting human rights not only *de jure*, but also *de facto*.

The right to an effective remedy is also fundamentally linked to the ability to challenge judicial decisions. However, AI-driven adjudication raises significant barriers to this right. The opacity of AI algorithms prevents litigants from understanding how decisions are made, thus making it difficult to identify errors or biases and nearly impossible to appeal. This lack of transparency undermines judicial accountability and denies litigants the ability to pursue remedies effectively. Furthermore, autonomous AI systems pose an additional risk by standardizing decisions without considering the unique circumstances of individual cases. Unlike human judges, who exercise discretion to ensure proportional and context-sensitive outcomes, AI systems rely on rigid algorithms that risk producing formulaic, inadequate, or disproportionate remedies.

Although the right to appeal a court decision is formally guaranteed, exercising it may be difficult or even impossible when a litigant is unable to understand how the decision was reached due to the opacity of the AI model on which it is based. The Constitutional Court of Lithuania has emphasized that the right to a fair trial under Article 30(1) of the Constitution[589] includes not only access to a court but also the possibility to appeal a first instance decision to at least one higher court, in order to correct possible errors. As the Court has stated, this right cannot be artificially restricted or denied, since the ability to correct lower court mistakes is essential both for protecting individual rights and for maintaining public trust in the judicial system[590]. However, if a litigant cannot understand the reasoning behind a certain decision – particularly in cases involving opaque AI-generated or AI-influenced reasoning – this right may become merely formal, undermining the very constitutional guarantees it is meant to uphold.

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[587] CJEU, T-49/07, *Sofiane Fahas v. Council of the European Union*, 7 December 2010.

[588] CJEU, 222/84, *Marguerite Johnston v. Chief Constable of the Royal Ulster Constabulary*, 15 May 1986, para. 19.

[589] Constitution of the Republic of Lithuania, *Lietuvos aidas*, 1992, No. 220-0.

[590] Ruling of 7 November 2024, No. 5/2024 of the Constitutional Court of the Republic of Lithuania.

Additionally, the CEPEJ has emphasized that parties must have access to and the ability to challenge the scientific validity of algorithms used in judicial processes. This includes understanding the weighting of various algorithmic factors and identifying erroneous conclusions[591]. Without such safeguards, litigants are effectively denied the right to an effective remedy, as they cannot properly contest or appeal decisions influenced by opaque or flawed AI systems.

To ensure fairness, the role of AI in adjudication must remain strictly limited to a supportive function, with human judges retaining full decision-making authority. Courts must establish clear safeguards to prevent AI from undermining judicial reasoning, procedural fairness, and the right to an effective remedy. Transparency, interpretability, and contestability must be the guiding principles in the adoption of AI within the judiciary. Without these safeguards, AI-driven adjudication risks eroding the fundamental principles of justice, reducing judicial decision-making to unchallengeable algorithmic determinations that compromise fairness and public trust in the legal system.

[591] J. Ulenaers, 'The Impact of Artificial Intelligence on the Right to a Fair Trial: Towards a Robot Judge?' (2020) *Asian Journal of Law and Economics*, *Vol. 11*, issue 2, pp. 1-38.

CONCLUSIONS

1. To ensure procedural fairness, judicial accountability, and public confidence, the role of AI in adjudication must remain strictly limited to a supportive function, with human judges retaining full decision-making authority. Courts must establish safeguards to prevent AI from undermining judicial reasoning, procedural guarantees, and judicial independence. The integration of AI systems to assist judges in preparing judgments reflects the European approach, which emphasizes human oversight to maintain accountability and is consistent with the constitutional mandate of courts to administer justice. Properly implemented, these tools can enhance efficiency by organizing and prioritizing cases, identifying patterns in case law, and preparing draft decisions while ensuring judges retain autonomy over outcomes. However, the current state of AI limits its capacity to handle complex or 'hard' cases, which require nuanced judgment, ethical reasoning, and contextual understanding. AI systems are most effective in 'easy' cases, i.e., those with straightforward legal questions and clear precedents, where they can streamline decision-making and reduce workloads, thus allowing judges to focus on more complex matters. The distinction between easy and hard cases also provides a valuable framework for future debates, as even in hypothetical scenarios of autonomous AI adjudication, easy cases would be the first to be delegated to AI. While speculation about autonomous AI judges persists, the complete replacement of human judges remains both legally excluded and technically unfeasible in the foreseeable future, even though, in the long term, it may become a question worth exploring as technology and societal expectations are bound to evolve.

2. The integration of remote hearings has significantly transformed the concept of a public hearing, by shifting it from physical courtrooms to digital spaces while striving to uphold the principles of accessibility, fairness, and transparency. This evolution has expanded access to justice by removing geographical barriers, enabling broader participation, and ensuring that judicial processes can continue during crises like the COVID-19 pandemic.

3. The digitalisation of court systems has significantly expanded access to courts by reducing barriers in four key areas: geographical, financial, informational, and technological. Digital court administration tools have been instrumental in this progress. Remote participation and e-filing systems minimize geographical constraints, whereas automation lowers costs, and digital platforms provide an easier access to case information

and legal resources. These advancements streamline procedures, thus enabling faster and more efficient resolutions. However, digitalisation has also introduced challenges that can narrow down the access to courts. Issues such as digital literacy, internet connectivity, and access to devices disproportionately affect vulnerable groups, potentially excluding them from judicial processes. Moreover, technology has altered the principle of procedural equality, creating disparities between litigants who are digitally proficient and those who are not. Individuals denoted by higher digital literacy and access to resources are better positioned to navigate modern judicial processes, file documents, and participate in remote hearings, which undermines fairness and procedural balance. By implementing safeguards, such as retaining the traditional access methods, providing digital literacy programs, and improving the technological infrastructure, these barriers can be mitigated, thereby ensuring that the benefits of technological advancements are equitably shared among all court users while preserving procedural fairness.

4. The integration of AI in adjudication significantly impacts fairness and the litigants' rights, particularly the adversarial principle, equality of arms, the right to a reasoned judgment, and the right to an effective remedy. The opacity of AI tools, often protected by intellectual property laws, prevents judges and litigants from understanding or contesting algorithmic decisions. This lack of transparency undermines fairness by obstructing appeals and denying the litigating parties the ability to identify errors, biases, or flaws in AI-generated outputs. Furthermore, AI-driven standardization threatens judicial reasoning, as seen in cases where judges defer excessively to algorithmic risk assessments. Autonomous AI systems exacerbate these risks by producing rigid, context-insensitive decisions that fail to uphold individualized justice. To safeguard fairness, transparency and contestability must be prioritized in AI-assisted adjudication. Judges must retain full oversight and provide reasoned judgments independent of opaque algorithmic outputs. Mechanisms to challenge the validity of AI-generated recommendations, combined with judicial training on AI technologies, are essential to protecting procedural fairness and maintaining public trust in the legal system.

5. While digital tools can support judicial independence and impartiality by increasing transparency and consistency, and by reducing opportunities for manipulation, the use of opaque AI systems introduces new threats. Algorithmic opacity, automation bias, and proprietary constraints risk undermining the ability of judges to reason independently and explain their decisions. To prevent this danger, human judges must retain control

over outcomes, and AI tools must meet transparency, accountability, and fairness standards. To preserve fairness and autonomy in judicial decision-making, transparency, judicial training, and human oversight must be prioritized.

6. The integration of technology in judicial processes enhances access to legal representation by reducing logistical barriers, improving transparency, and empowering litigants. Digital tools streamline case management and facilitate remote participation, strengthening inclusivity in legal proceedings. However, the growing reliance on opaque AI systems risks marginalizing human advocacy and limiting meaningful legal representation. When AI-driven decision-making restricts the ability of legal professionals to challenge, interpret, and advocate effectively, the adversarial process is weakened, and fundamental legal protections are compromised. To ensure that technology reinforces rather than undermines the right to be advised, defended, and represented, judicial systems must prioritize human oversight, algorithmic transparency, and strong appeal mechanisms. Legal professionals must remain central to the justice system, ensuring fairness, accountability, and trust in judicial processes.

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36. European Council meeting (19 October 2017)—Conclusions. EUCO 14/17. Brussels. Available at: https://www.consilium.europa.eu/media/21620/19-euco-final-conclusions-en.pdf.
37. European Parliament Resolution of 20 October 2020 with recommendations to the Commission on a framework of ethical aspects of AI, robotics and related technologies (2020/2012(INL)), OJ C 404, 63–106.
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44. Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on AI (AI Act) and amending certain union legislative acts, COM/2021/206 final.
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46. The European Ethical Charter on the Use of AI in Judicial Systems and their environment, adopted by the CEPEJ during its 31st Plenary meeting, Strasbourg, 3-4 December 2018.

SANTRAUKA

1. TEMOS AKTUALUMAS IR MOKSLINĖS PROBLEMOS IDENTIFIKAVIMAS

Technologinė pažanga vyksta precedento neturinčiu tempu, todėl mokslininkai ir politikos formuotojai dabartinį laikotarpį apibūdina kaip ketvirtąją pramonės revoliuciją[592], o kai kuriose diskusijose kyla klausimas, ar vėlesnę raidą derėtų vadinti penktąja pramonės revoliucija[593]. Kiekviena pramonės revoliucija sukėlė didžiulius socialinius pokyčius ir sukūrė daug galimybių, o ši pagal mastą, išplitimo spartą bei atsižvelgus į tolesnės plėtros galimybes yra pripažįstama didžiausia. Todėl būtina tinkamai reglamentuoti technologijų naudojimo tvarką ir numatyti kartu su šia revoliucija atsirandančias teisines rizikas, neužkertant kelio tvariam technologijų vystymuisi.

Šių technologijų naudojimo reguliavimo poreikis ypač akivaizdus viešajame sektoriuje, kuriame vis labiau skatinamos technologinės inovacijos. Pavyzdžiui, dar 2016 m. Europos Komisija pastebėjo, kad skaitmeninės viešosios paslaugos mažina administracinę naštą įmonėms ir piliečiams, nes bendravimas tampa greitesnis, patogesnis ir pigesnis[594]. Be to, 2018 m. Skaitmeninėje strategijoje Europos Komisija užsibrėžė tikslą pereiti prie skaitmeninės transformacijos administravimo[595]. Tačiau buvo pastebėta ir tam tikrų rizikų, susijusių su technologijų plėtra viešajame sektoriuje. Pavyzdžiui, 2018 m. savo komunikate Komisija pabrėžė, kad, viena vertus, Europos Sąjunga turi stiprinti savo technologinius ir pramoninius pajėgumus, o kita vertus, ji privalo užtikrinti tinkamą etinį ir teisinį pagrindą, atitinkantį Sąjungos vertybes[596]. O štai 2020 m. spalio 20 d. Europos Parlamentas priėmė Rezoliuciją su rekomendacijomis Komisijai dėl dirbtinio intelekto, robotikos ir susijusių technologijų etinių aspektų sistemos, kurioje nurodė, jog tikisi, jog Europos Komisija patikimą etinį požiūrį įtrauks į prašomą pasiūlymą dėl

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592 K. Schwab, *The Fourth Industrial Revolution* (Crown Publishing Group 2017).

593 M. S. Noble, et al., 'The Fifth Industrial Revolution: How Harmonious Human–Machine Collaboration is Triggering a Retail and Service [R]evolution' (2022) *98 Journal of Retailing 2*, pp. 199-208.

594 Komisijos Komunikatas Europos Parlamentui, Tarybai, Europos Ekonomikos ir Socialinių Reikalų Komitetui ir Regionų Komitetui „2016–2020 m. ES e. valdžios veiksmų planas", COM/2016/0179 final.

595 Europos Komisijos komunikatas „European Commission Digital Strategy. A digitally transformed, user-focused and data-driven Commission, COM\2018\7118 final.

596 Komisijos komunikatas „Dirbtinis intelektas Europai", COM/2018/237 final.

teisėkūros procedūra priimamo akto, įskaitant saugumo, atsakomybės ir pagrindinių teisių aspektus, kuriais sukuriamos didžiausios įmanomos galimybės ir kuo labiau sumažinama dirbtinio intelekto technologijų keliama rizika[597]. 2021 m. balandžio 21 d. Europos Komisija pristatė pasiūlymą dėl reglamentavimo sistemos dėl dirbtinio intelekto, kur nurodė, jog atsižvelgdama į technologijų pokyčių greitį ir galimus iššūkius, Europos Sąjunga yra įsipareigojusi siekti subalansuoto požiūrio. Sąjunga yra suinteresuota išlaikyti Europos Sąjungos technologinę lyderystę ir užtikrinti, kad europiečiai galėtų pasinaudoti naujų technologijų, sukurtų ir veikiančių pagal Sąjungos vertybes, pagrindines teises ir principus, privalumais[598]. Nors matome, kad įvairios Europos institucijos skatina vis didesnę technologijų integraciją, derinant ją su etikos principais, neaišku, kokio lygio technologinė intervencija į tradicinius viešųjų paslaugų teikimo būdus yra laikoma europietiška.

Tarp technologinių išradimų, dirbtinis intelektas išsiskiria kaip transformuojanti jėga, ypač teisingumo sistemose. Pripažintas kaip viena svarbiausių pastarųjų metų informacinių ir komunikacinių technologijų naujovių[599], jis taip pat įvardijamas kaip viena iš trijų sričių, turinčių didelį potencialą gerinti teisingumo efektyvumą ir kokybę[600]. Europos Sąjunga, 2024 m. priimdama Dirbtinio intelekto aktą[601], pademonstravo savo įsipareigojimą derinti inovacijas su žmogaus teisių apsauga, taip nustatydama pasaulinį precedentą. Šis teisėkūros pasiekimas pabrėžia skubų poreikį tolesniems teisiniams tyrimams, siekiant spręsti besikeičiantį DI vaidmenį teisminėje ir teisinėje srityse.

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[597] Europos Parlamento 2020 m. spalio 20 d. Rezoliucija su rekomendacijomis Komisijai dėl etinių dirbtinio intelekto, robotikos ir susijusių technologijų etinių aspektų sistemos (2020/2012(INL)), OJ C 404, 63–106.

[598] Pasiūlymas Europos Parlamento Ir Tarybos Reglamentas kuriuo nustatomos suderintos dirbtinio intelekto taisyklės (Dirbtinio intelekto aktas) ir iš dalies keičiami tam tikri Sąjungos teisėkūros procedūra priimti aktai, COM/2021/206 final.

[599] 2019–2023 m. Europos e. teisingumo strategija ir veiksmų planas, ST/5140/2019/INIT OJ C 96, 13.3.2019, p. 9–32.

[600] Europos veiksmingo teisingumo komisija, 2018. Ataskaita „European judicial systems. Efficiency and quality of justice“, Studija Nr. 26. Strasbūras, prieiga per internetą: <https://rm.coe.int/...ouv-18-09-2018-en/16808def9c> žiūrėta 2025 m. sausio 30 d.

[601] 2024 m. birželio 13 d. Europos Parlamento ir Tarybos reglamentas (ES) 2024/1689, kuriuo nustatomos suderintos dirbtinio intelekto taisyklės ir iš dalies keičiami reglamentai (EB) Nr. 300/2008, (ES) Nr. 167/2013, (ES) Nr. 168/2013, (ES) 2018/858, (ES) 2018/1139 ir (ES) 2019/2144 ir direktyvos 2014/90/ES, (ES) 2016/797 ir (ES) 2020/1828 (Dirbtinio intelekto aktas), OL L, 2024/1689, OJ L, 2024.

2020 m. Rezoliucijoje Europos Parlamentas pažymėjo, kad technologijos, kurios geba priimti automatizuotus sprendimus ir taip pakeisti valdžios institucijų priimtus sprendimus, turėtų būti traktuojamos itin atsargiai, ypač teisingumo ir teisėsaugos srityje[602]. Rezoliucijoje taip pat pabrėžta, kad pasitikėjimo teisingumo institucijomis skatinimas yra labai svarbus siekiant, kad viešpatautų teisinės valstybės principas, todėl teismuose technologijos turėtų būti naudojamos itin atsargiai. Pripažįstant dirbtinio intelekto, robotikos ir susijusių technologijų potencialią naudą viešosios valdžios sprendimų priėmimo procesuose, Rezoliucijoje įspėjama apie išliekančią netinkamo jų naudojimo riziką, sąlygojančią, pavyzdžiui, masinį stebėjimą, nuspėjamą policijos veiklą (angl. predictive policing) ir procesinių teisių pažeidimus. Todėl valstybės narės turėtų diegti tokias technologijas tik tada, jei yra išsamių įrodymų apie jų patikimumą ir jei yra įmanomas reikšmingas žmogaus įsikišimas ir peržiūra tais atvejais, kai kyla pavojus pagrindinėms laisvėms[603]. Be to, Rezoliucijoje pabrėžiama, kaip svarbu atskirti technologijų tipus, tinkamus naudoti teismuose. Lyginamoji analizė apie įvairiose teismų sistemose įdiegtas technologines naujoves galėtų atskleisti, kaip skiriasi technologinės intervencijos lygis skirtingose jurisdikcijose, ir prisidėti prie tinkamiausių technologijų identifikavimo konkretiems teisminiams kontekstams.

Tobulėjant technologijoms, autonominio dirbtinio intelekto taikymo teisminiame sprendimų priėmime idėja sukėlė daug diskusijų dėl to, ar dirbtinis intelektas turėtų visiškai pakeisti žmogaus sprendimų priėmimą teisminiuose procesuose. Nors kai kurie moksliniskai palaiko šią idėją, teigdami, kad, pavyzdžiui, dirbtinio intelekto teisėjai būtų ne mažiau patikimi (ir ekonomiškesni) nei teisėjai žmonės, ir jei dirbtinio intelekto programa kada nors išlaikys Turingo testą[604], iš esmės turėtume priimti ją kaip teisėją[605] arba kad šioje vis galingesnių mašinų eroje nėra absurdiška tikėtis, kad tam tikru

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602 Europos Parlamento 2020 m. spalio 20 d. Rezoliucija su rekomendacijomis Komisijai dėl etinių dirbtinio intelekto, robotikos ir susijusių technologijų etinių aspektų sistemos (2020/2012(INL)), OJ C 404, 63–106.

603 Europos Parlamento 2020 m. spalio 20 d. Rezoliucija su rekomendacijomis Komisijai dėl etinių dirbtinio intelekto, robotikos ir susijusių technologijų etinių aspektų sistemos (2020/2012(INL)), OJ C 404, 63–106.

604 Turingo testas, kurį 1950 m. pristatė Alanas Turingas, vertina mašinos gebėjimą pademonstruoti žmogui būdingą intelektą. Jei vertintojas negali atskirti mašinos ir žmogaus atsakymų pokalbio metu, laikoma, kad mašina išlaikė testą. Kalbant apie dirbtinio intelekto taikymą teisminiame sprendimų priėmime, Turingo testo išlaikymas reikštų, kad dirbtinis intelektas geba imituoti žmogaus mąstymą ir sprendimų priėmimą taip, jog šie būtų neatskiriami nuo teisėjo veiklos.

605 E. Volokh, '*Chief Justice Robots', (2019) 68 Duke Law Journal*, pp. 1135-1192.

etapu, nesvarbu, ar po dvidešimties, ar po 100 metų, sistemos pranoks teisėjus jų funkcijų atlikime[606], kiti mano, kad kol vargu ar robotai pakeis teisėjus, populiaresni yra kuriami automatiniai įrankiai, padedantys teisėjams priimti sprendimus[607] ir kad ateityje svarbesnį vaidmenį galėtų atlikti padėjėjai (angl. co-bots), o ne robotai teisėjai[608]. Šios diskusijos pabrėžia būtinybę analizuoti etinius, teisinius ir praktinius dirbtinio intelekto taikymo teismų sistemoje aspektus, ypatingą dėmesį skiriant atsakomybei, skaidrumui, žmogaus sprendimų priežiūros išsaugojimui ir rizikoms, susijusioms su kritinių sprendimų patikėjimu autonominėms sistemoms. Ankstesniuose žiniasklaidos pranešimuose, pavyzdžiui, 2019 m. „Wired“ straipsnyje, buvo teigiama, kad Estija kuria „robotą teisėją“, kuris spręstų nedidelius (iki 7000 EUR) civilinius ginčus, kylančius iš sutarčių[609]. Tačiau Estijos Teisingumo ministerija 2022 m. oficialiai patikslino šią informaciją, pareikšdama, kad toks projektas nebuvo sukurtas ar planuojamas sukurti. Vietoje to, Estija daugiausia dėmesio skiria procesinių veiksmų automatizavimui, pavyzdžiui, nacionalinėje mokėjimo įsakymo procedūroje, ir mašininio mokymosi įrankių, skirtų tokioms užduotims kaip teismo dokumentų transkripcija ir anonimizavimas, kūrimui[610]. Nepaisant to, pirminiai pranešimai prisidėjo prie viešų diskusijų apie dirbtinio intelekto potencialą ir riziką teismo sprendimų priėmime. Atsižvelgus į tai, kad teismų sistemos dažnai susiduria su dideliu susikaupusių bylų kiekiu, šios diskusijos kelia svarbius klausimus apie tai, ar ir kaip ateityje tam tikros bylos galėtų būti deleguojamos dirbtinio intelekto sistemoms. Todėl būtina išsamiai išanalizuoti dirbtinio intelekto taikymą teisminiame sprendimų priėmime – tiek siekiant užtikrinti tinkamą jo plėtrą, tiek nustatyti, ar tam tikros bylos gali būti deleguotos dirbtiniam intelektui, ir, jei taip, kurios.

COVID-19 pandemija paspartino teisminių procesų skaitmenizaciją visame pasaulyje. Teismams prisitaikant prie naujų technologinių realijų, kyla klausimų, kiek šis skaitmeninis pokytis turėtų tapti nuolatiniu. Vis labiau prie

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606 R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press 2019).

607 J. Zeleznikow, ‘Can AI and Online Dispute Resolution Enhance Efficiency and Effectiveness in Courts’, (2017) *International Journal for Court Administration, vol. 8, No.* 2, pp. 30-45 (pp. 30).

608 T. Sourdin ir R. Cornes, ‘Do Judges Need to Be Human? The Implications of Technology for Responsive Judging’ knygoje T. Sourdin ir A. Zariski (redaktoriai), *The Responsive Judge* (2018), pp. 87–119.

609 E Niiler, ‘Can Al Be a Fair Judge in Court? Estonia Thinks So’ (WIRED, 25 March 2019) <https://www.wired.com/story/can-ai-be-fair-judge-court-estonia-thinks-so/> žiūrėta 23 May 2025.

610 Estijos Teisingumo ministerija, ‘Estonia Does Not Develop AI Judge’ (2022 m. vasario 16 d.), prieiga per internetą: <https://www.justdigi.ee/en/news/estonia-does-not-develop-ai-judge> žiūrėta 2025 m. gegužės 23 d.

internetinių paslaugų pripratusiame pasaulyje tradicinės teisingumo administravimo sampratos rizikuoja tapti pasenusios, todėl būtina iš naujo įvertinti technologijų vaidmenį teismuose. Spartus perėjimas prie skaitmeninių sprendimų teisminiame procese reikalauja gilesnės analizės, kaip efektyviausiai integruoti technologijas į teismus, išlaikant pagrindines teisingumo vertybes, užtikrinant sąžiningus ir prieinamus teisės procesus bei įvertinant, kaip aip nuotoliniai posėdžiai jau paveikė teisę į teisingumą. Šie pokyčiai atskleidžia technologinės transformacijos teismų sistemose galimybes ir rizikas bei kelia esminius klausimus dėl jos suderinamumo su teisės į teisingumą principu.

Teisė į teisingumą, kurią garantuoja Europos Sąjungos pagrindinių teisių chartijos 47 straipsnis[611] ir kurią sustiprina pirminė Europos Sąjungos teisė, yra pagrindinis principas, būtinas demokratijos funkcionavimui ir visuomenės pasitikėjimui teismų sistema. Konkrečiai, Sutarties dėl Europos Sąjungos veikimo 67 straipsnio 4 dalyje nustatyta, kad Sąjunga palengvina teisės į teisingumą įgyvendinimą, o 81 straipsnio 2 dalies e punkte nurodoma, jog reikia priimti priemones, ypač kai to reikia tinkamam vidaus rinkos veikimui, siekiant užtikrinti veiksmingą teisę į teisingumą[612]. Be to, teisė į teisingumą yra ir teisinės valstybės principo sudedamoji dalis, ir būtinoji jo prielaida. Tačiau technologijų integracija į teismų veiklą kelia iššūkių šiai esminei teisei. Itin svarbu užtikrinti, kad technologinei pažangai vykstant teisė į teisingumą būtų išlaikyta – tai būtina siekiant stiprinti demokratiją ir pasitikėjimą teismų sistema. Siekiant įvertinti, ar besipletojantis technologijų naudojimas teismų veikloje teisę į teisingumą stiprina, ar ją silpnina, būtina nuodugni analizė. Nors mokslinis įsitraukimas į šias problemas pradeda ryškėti, jis kol kas yra tik fragmentiškas ir neišsamus.

Jungtinių Tautų plėtros programos 2022 m. ataskaitoje „E. teisingumas: skaitmeninė transformacija siekiant panaikinti teisingumo atotrūkį“ pažymėta, kad e. teisingumo žmogaus teisių analizės sudėtingumas būtent ir yra priežastis, kodėl itin svarbu, jog prioritetas būtų teikiamas apibrėžtam ir nekryptingam skaitmeninių priemonių poveikiui asmenims ir grupėms išnagrinėti[613]. Šis tyrimas atitinka šį prioritetą, nagrinėdamas, kaip teisminės technologijos keičia teisę į teisingumą skaitmeniniame amžiuje. Tokia analizė

[611] Europos Sąjungos pagrindinių teisių chartija, OJ 2012 C 326.

[612] Sutartis dėl Europos Sąjungos veikimo, OJ 2012 C 326.

[613] Jungtinių Tautų vystymosi programa “E-Justice: Digital Transformation to Close the Justice Gap”, 2022, pp. 13, prieiga per internetą: <https://www.undp.org/sites/g/files/zskgke326/files/2022-06/E%20justice-Report%2005.pdf> žiūrėta 2025 m. sausio 30 d.

yra būtina siekiant užtikrinti, kad teismų skaitmeninė transformacija ne tik pagerintų teisingumo teikimą, bet ir nepažeistų žmogaus teisių.

2. TYRIMO OBJEKTAS, TIKSLAS IR UŽDAVINIAI

Disertacinio tyrimo objektą apibūdina disertacijos temos pavadinimas. Tyrime pagrindinis dėmesys skiriamas technologijų integravimo teismuose ir teisės kreiptis į teismą principo sąveikai. Analizuojama, kaip įvairios technologijos – nuo teismų administravimo ir bylų valdymo sistemų iki pažangių dirbtinio intelekto įrankių – daro įtaką pagrindiniams teisės kreiptis į teismą elementams, tokiems kaip teisė į teisingą bylos nagrinėjimą, teisinės pagalbos prieinamumas, teismų nepriklausomumas ir nešališkumas, viešųjų posėdžių skaidrumas bei veiksmingų teisių gynimo priemonių užtikrinimas.

Šioje disertacijoje terminas „technologijos“ vartojamas kaip bendrinė sąvoka, apimanti šiuolaikines skaitmenines priemones, taikomas teismų sistemose, įskaitant informacines sistemas (pvz., LITEKO), elektroninių paslaugų portalus (pvz., e.teismas.lt) bei nuotolinių ar asinchroninių posėdžių organizavimo priemones. Dirbtinis intelektas, dėl savo išskirtinio pobūdžio ir pasekmių, nagrinėjamas kaip atskira kategorija ir detaliai analizuojamas visoje disertacijoje, ypatingą dėmesį skiriant 1.2 skyriuje. Toks atskyrimas leidžia išvengti bendrojo skaitmeninimo ir dirbtiniam intelektui specifinių klausimų supainiojimo bei užtikrina terminologinį tikslumą visame tyrime.

Šioje disertacijoje teisė į teisingumą suprantama ne tik kaip formali teisė kreiptis į teismus, bet ir kaip daugialypis principas, apimantis kelis tarpusavyje susijusius komponentus. Remiantis ES teise, EŽTT praktika, Lietuvos Konstitucinio Teismo jurisprudencija ir doktrina, šie komponentai apima teisę į teisingą teismą, kuri suponuoja teisėjų nepriklausomumą ir nešališkumą, teisingo ir viešo bylos nagrinėjimo garantiją, teises į teisinę pagalbą ir atstovavimą bei teisę į veiksmingą teisinę gynybą. Šioje disertacijoje ši plati teisės į teisingumą samprata konkretinama per šiuos elementus, iš kurių kiekvienas nagrinėjamas atskirai, atsižvelgiant į technologinės transformacijos kontekstą. Toks požiūris leidžia atlikti struktūruotą analizę: užuot traktavus teisę į teisingumą kaip abstraktų principą, disertacijoje ji suskaidoma į konkrečius aspektus, kurie gali būti vertinami atsižvelgiant į konkrečias technologines intervencijas.Siekiant disertacinio tyrimo analizės tikslumo ir atsižvelgiant į specifinius jo apribojimus, tyrime pagrindinis dėmesys skiriamas išimtinai civilinėms ir administracinėms teismų sistemoms. Dėl specifinio baudžiamųjų bylų pobūdžio ir platesnio žmogaus teisių apsaugos masto, taikomo baudžiamųjų procesų nagrinėjimui, šių bylų nagrinėjimo analizė nėra įtraukiama. Taip pat

klausimai, susiję su technologijų taikymu neteisminėse institucijose ir alternatyviais ginčų sprendimo mechanizmais, nepatenka į šio tyrimo apimtį.

Disertacijoje pirmiausia nagrinėjama Lietuvos teisinė sistema, ypatingą dėmesį skiriant technologinėms naujovėms Lietuvos teismuose. Tačiau, analizuojant technologijų taikymą sprendimų priėmimo procese, taikomas lyginamasis metodas, įtraukiant pavyzdžius iš kitų jurisdikcijų, siekiant suteikti platesnį kontekstą ir vertingų įžvalgų.

Galiausiai, šiame tyrime nagrinėjama technologijų ir teisminių sprendimų priėmimo procesų sąveika bei teismų administracinės funkcijos, jas siejant su disertacijoje analizuojamais teisės į teisingumą elementais. Tyrimas neapima sprendimų vykdymo, vykdymo procesų ar technologijų taikymo neteisminėse institucijose bei alternatyviuose ginčų sprendimo mechanizmuose. Toks kryptingas požiūris užtikrina išsamų ir tikslų tyrimą, kaip įvairios technologijos – palaikančios administracines funkcijas ar tiesiogiai naudojamos sprendimų priėmimo procese – daro įtaką teisei į teisingumą.

Šio disertacijos tyrimo tikslas – pasitelkiant teorinius ir praktinius pavyzdžius išanalizuoti technologinės pažangos poveikį teisės į teisingumą principui, daugiausia dėmesio skiriant tam, kaip ji keičia tradicinę teisingumo vykdymo paradigmą. Tyrime nagrinėjama, kaip įvairių lygių technologijos – nuo priemonių, skirtų teismų administracinėms funkcijoms palaikyti, iki pažangių teisminių sprendimų priėmimo sistemų – transformuoja pagrindinius teisės į teisingumą elementus. Šie elementai apima teisę į teisingą bylos nagrinėjimą, įskaitant teismų nepriklausomumą ir nešališkumą, teisę į teisingą ir viešą bylos nagrinėjimą, teisės gauti teisinę pagalbą prieinamumą, teisę būti konsultuojamam, ginamam ir atstovaujamam, taip pat teisę į veiksmingą teisinę gynybą.

Sutelkiant dėmesį į Lietuvos teisinę sistemą ir pasitelkiant lyginamuosius pavyzdžius iš kitų jurisdikcijų, šiuo tyrimu siekiama išsamiai išanalizuoti, kaip technologinės naujovės iš naujo apibrėžia teisės į teisingumą sampratą ir jos praktinį įgyvendinimą. Tyrimas ne tik atskleidžia technologijų teikiamas galimybes modernizuojant teisminius procesus bei didinant jų prieinamumą, bet ir įvertina iššūkius, susijusius su teisingumo, skaidrumo ir lygybės užtikrinimu. Galiausiai tyrimu siekiama pateikti pagrįstas įžvalgas, kaip tikslingai ir atsakingai integruoti technologijas į teismų veiklą, užtikrinant jų suderinamumą su nuolat besivystančiais teisės į teisingumą principais.

Atsižvelgiant į tyrimo objektą ir jo ribas, šiam disertacinio tyrimo tikslui pasiekti keliami tokie uždaviniai:

1) Išnagrinėti technologijų ir dirbtinio intelekto reguliavimo aplinką Europos teismuose, nustatant ir analizuojant pagrindinius

institucinius bei politikos pagrindus – būtent Europos institucijų vaidmenį, europinį teisių apsaugos požiūrį į reguliavimą, dirbtinio intelekto teisinę apibrėžtį teisminėje sistemoje bei pusiausvyrą tarp inovacijų ir esminių teisinių principų – ypač teisės į teisingumą skaitmeninės transformacijos kontekste.

2) Ištirti technologijų naudojimą teismuose, suskirstant technologijas į pasitelkiamas teismams atliekant administracines funkcijas ir vykdant teisingumą, bei įvertinti, kaip šios technologinės naujovės keičia tradicines teisingumo įgyvendinimo paradigmas.
3) Trečia, ištirti perspektyvas naudoti dirbtinio intelekto sistemas siekiant padėti teisėjams ir siekiant pakeisti juos teismo sprendimų priėmimo procese, atsižvelgiant į Europos Sąjungos reguliavimą, ir, remiantis sunkių ir lengvų bylų konceptu, įvertinti dabartinius dirbtinio intelekto galimybių ir ribotumų aspektus teisminių sprendimų priėmimo procese.
4) Įvertinti transformuojantį technologijų poveikį teisei į teisingumą – tiek stiprinant jos elementus, tiek sukuriant naujų iššūkių – analizuojant teisės į teisingumą principų ir praktinių technologijų taikymo pavyzdžių teismuose sąveiką bei detaliai nagrinėjant poveikį kiekvienam elementui.

3. PAGRINDINIAI GINAMIEJI TEIGINIAI

Išskirtini šie disertacinio tyrimo ginamieji teiginiai:

1. Dirbtinio intelekto vaidmuo teismo sprendimų priėmime turi būti pagalbinis - toks įdiegimas atitinka europietišką požiūrį į dirbtinio intelekto naudojimą teismuose, pagal kurį galutinė sprendimo galia išlieka teisėjams - o praktikoje tinkamiausia jo paskirtis yra padėti teisėjams spręsti lengvas bylas.
2. Technologijų integracija į teismus gali tiek sustiprinti, tiek susilpninti teisėjų nepriklausomumą, nešališkumą, pareigos tinkamai motyvuoti teismo sprendimus įgyvendinimą ir sąžiningumą, todėl būtina užtikrinti teisėjų diskreciją, technologijų veikimo skaidrumą ir žmogaus priežiūrą.
3. Teismų skaitmenizavimas išplėtė galimybes kreiptis į teismą, sumažindamas geografines, finansines ir informacines kliūtis bei pagerindamas prieigą prie teisinės pagalbos, tačiau kartu sukūrė naujų iššūkių dėl nevienodo skaitmeninio raštingumo ir technologinių išteklių, kurie ypač paveikia pažeidžiamas grupes.

4. Technologijų integracija į teisminius procesus gali padėti geriau įgyvendinti teisę į teisminę gynybą, suteikdama naujų galimybių tiek teisininkams, tiek savarankiškai besikreipiantiems į teismą asmenims, tačiau kartu, ypač pasitelkiant dirbtinį intelektą, kyla rizika susilpninti rungimosi procesą, jei sprendimų priėmime pernelyg pasikliaujama neskaidriai veikiančiomis sistemomis.

4. TEMOS IŠTIRTUMO LYGIS IR DISERTACINIO TYRIMO MOKSLINIS NAUJUMAS

Disertacinio tyrimo aktualumas ir mokslinis naujumas grindžiamas tuo, kad jame nagrinėjami menkai ištirti teisiniai iššūkiai, kylantys integruojant technologijas į teismų sistemas, ir analizuojamas jų poveikis teisės į teisingumą principui.

Nacionaliniu lygmeniu akivaizdžiai trūksta tyrimų, kurie nagrinėtų, kaip technologinių inovacijų diegimas teismuose dera su pagrindiniais teisės į teisingumą elementais arba juos galimai silpnina. Nors keliuose monografiniuose tyrimuose analizuojami technologijų aspektai Lietuvos teismuose — pavyzdžiui, V. Nekrošiaus ir bendraautorių darbe apie elektroninių priemonių naudojimą civiliniame procese[614], V. Vėbraitės studijoje apie COVID-19 pandemijos poveikį Lietuvos civilinei justicijai[615], V. Vėbraitės ir G. Strikaitės-Latušinskajos tyrime apie Lietuvos teismų skaitmenizaciją[616] ar D. Murausko analizėje apie algoritmų klasifikavimą teisminiame sprendimų priėmime bei jų keliamą riziką teisei į teisingą teismą[617] — nėra atlikta lyginamoji analizė apie kitų jurisdikcijų teismuose naudojamas technologijas ir jų poveikį teisei į teisingumą. Be to, nė viename tyrime nebuvo ištirta, ar teismų modernizavimas pakeitė tradicinį teisės į teisingumą principo įgyvendinimą. Vis dar nėra sisteminės analizės, kuri nagrinėtų įvairių technologijų integravimą į teismus ir jų poveikį konkretiems

[614] V. Nekrošius, et al, 'Elektronizavimo priemonių naudojimas spartinant lietuvos civilinį procesą', (2015) *Teisė* 93, pp. 29-45.

[615] V. Vėbraitė, 'Impact of Covid-19 pandemic on Lithuanian civil justice' knygoje B. Krans ir A. Nylund (redaktoriai), *Civil courts coping with Covid-19* (2021), pp. 123-127.

[616] V. Vėbraitė ir G. Strikaitė-Latušinskaja, 'Digitalisation of justice in Lithuania' knygoje K. Gajda-Roszczynialska (redaktorė), *Impact of the COVID-19 pandemic on justice systems: reconstruction or erosion of justice systems - case study and suggested solution* (2023), pp. 223-234.

[617] D. Murauskas, 'Dirbtinis intelektas priimant teismo sprendimą – algoritmų klasifikavimas remiantis teisinio kvalifikavimo stadijomis', (2020) *Teisė* 115, pp. 55-69.

teisės į teisingumą aspektams. Šiuo tyrimu siekiama pašalinti šias spragas, kritiškai analizuojant, ar pasirinkti technologinės integracijos metodai sustiprina ar susilpnina šią pagrindinę teisę.

Naujausi A. Juškevičiūtės-Vilienės darbai reikšmingai prisideda prie šios besiformuojančios tyrimų srities – juose analizuojami dirbtinio intelekto keliami iššūkiai konstituciniam teisės į teisingumą principui. 2020 m. straipsnyje[618] autorė glaustai aptaria elektroninio teisingumo privalumus ir trūkumus, keldama svarbius klausimus dėl to, ar DI pagrįstų įrankių ir internetinių ginčų sprendimo sistemų taikymas dera su konstituciniais principais, kuriais grindžiama teisė į teisingumą. 2024 m. straipsnyje[619] ji tiria DI poveikį teisės teorijai – ypač teisiniam pozityvizmui – ir analizuoja, kaip technologinė raida keičia teisinį švietimą, mokslinius tyrimus ir profesinę praktiką. Be to, neseniai A. Limantės ir M. Šukytės atliktas lyginamasis tyrimas apie dirbtinio intelekto diegimą Baltijos šalių teismuose[620] suteikia vertingų įžvalgų apie dabartinę praktiką ir ateities kryptis, pabrėždamas tiek galimybes, tiek konstitucinius iššūkius, kylančius regione siekiant skaitmeninio teisingumo. M. Žalnieriūtės tyrimas „Technologijos ir teismai: dirbtinis intelektas ir teismų nešališkumas“[621] dar labiau praplečia šią sritį – jame nagrinėjama, kaip DI naudojimas gali paveikti vieną pagrindinių teisės į teisingumą komponentų – teismų nešališkumą.

Ypač reikšmingu pastarojo meto indėliu laikytina 2025 m. profesoriaus V. Mizaro kalba, pasakyta Europos Žmogaus Teisių Teismo Teisminių metų atidarymo ceremonijoje[622]. Joje išskiriami trys dirbtinio intelekto taikymo teismuose konceptualūs modeliai: „argumentų kūrimo dirbtinis intelektas“, „prižiūrimas elektroninis teisėjas“ ir „autonominis elektroninis teisėjas“.

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618 A. Juškevičiūtė-Vilienė**,** ‘Artificial intelligence and the constitutional right of access to justice = Dirbtinis intelektas ir konstitucinė teisė į teisingumą’, (2020) *Acta Universitatis Lodziensis. Folia Iuridica* 93, pp. 117–136. DOI: 10.18778/0208-6069.93.08.

619 A. Juškevičiūtė-Vilienė, ‘Legal positivism, AI, and the modern legal landscape: challenges in education, research, and practice’, (2024) *Acta Universitatis Lodziensis. Folia Iuridica* 109, pp. 1–17. DOI: 10.18778/0208-6069.109.02.

620 A. Limantė ir M. Šukytė, ‘Comparative insights and future directions of AI in the courts of the Baltic States’, (2025) *International Journal of Law and Information Technology* 33, DOI: 10.1093/ijlit/eaaf002.

621 M. Zalnieriute, ‘Technology and the Courts: Artificial Intelligence and Judicial Impartiality’, Submission to the Australian Law Reform Commission, Review of Judicial Impartiality (2021). DOI: 10.2139/ssrn.3867901.

622 V. Mizaras, ‘Artificial Intelligence and the Right to a Fair Trial’ (ECHR, 31 January 2025), Prieiga per internetą: <https://www.echr.coe.int/documents/d/echr/speech-20250131-mizaras-jy-eng> accessed on 5 May 2025.

Mizaras teigia, kad tik modeliai, kuriuose išlaikomas teisėjo dalyvavimas sprendimų priėmimo procese, gali atitikti demokratinėms teisinėms sistemoms keliamus sąžiningumo, skaidrumo ir atskaitomybės standartus. Jis įvardija visiško automatizavimo keliamas rizikas – rungimosi principo išnykimą, motyvuoto sprendimo stoką ir grėsmes teisminiam nepriklausomumui – bei pabrėžia, kad dirbtinio intelekto taikymas sprendžiant bylas privalo išsaugoti esminius žmogiškumo elementus: vertinimą, empatiją ir diskreciją. Ši pozicija glaudžiai siejasi su šioje disertacijoje analizuojamu klausimu – ar teismų modernizavimas išsaugo teisės į teisingumą esmę, ar tampa vien techniniu efektyvumo didinimu.

Užsienio autorių literatūroje technologijų, įskaitant dirbtinį intelektą, naudojimui teismuose ir jų atitikčiai teisės į teisingumą principui skiriama gerokai daugiau dėmesio. Tokie mokslininkai kaip R. Susskindas nagrinėjo tokias dirbtinio intelekto naudojimą, asinchroninius teismo procesus ir galimą virtualios bei papildytos realybės įtaką teismų sistemose[623]. C. Xi analizavo asinchroninius teismo procesus[624], N. Mole and C. Harby – nuotolinius posėdžius[625], o antai T. Sourdin, analizuodama teisingumo sistemą keičiančias technologijas, suskirstė jas į tris kategorijas ir nagrinėjo jų poveikį teisingumo sistemai[626]. F. Bell, L. B. Moses, M. Legg, J. Silove ir M. Žalnieriūtė 2022 m. ataskaitoje, parengtoje Australazijos teisminės administracijos institutui[627], analizavo dirbtinio intelekto poveikį teisminėms vertybėms, įskaitant teisę į

[623] R. Susskind, *Online Courts and the Future of Justice* (Oxford University Press 2019); R. Susskind ir D. Susskind, *The Future of the Professions: How Technology Will Transform the Work of Human Experts, Updated Edition* (Oxford University Press 2022; R. Susskind, *Tomorrow's Lawyers: An Introduction to Your Future* (Oxford University Press 2023).

[624] C. Xi, 'Asynchronous Online Courts: The Future of Courts?', (2023) *Oregon Review of International Law, Vol. 24*, pp. 39-94.

[625] N. Mole ir C. Harby, *The Right to a Fair Trial: A Guide to the Implementation of Article 6 of the ECHR* (CoE 2006).

[626] T. Sourdin, 'Judge v Robot?: AI and Judicial Decision-Making', (2018) *The University of New South Wales Law Journal 41 no. 4*, pp. 1114-1133; T. Sourdin, 'Justice in the age of technology: The rise of machines is upon us'', (2017) *Precedent No. 139*, pp. 4-9; T. Sourdin, B. Li ir T. Burke, 'Just, Quick and Cheap: Civil Dispute Resolution and Technology', (2019) *Macquarie Law Journal, vol. 19*, pp. 17-38.

[626] C. Xi, 'Asynchronous Online Courts: The Future of Courts?', (2023) *Oregon Review of International Law, Vol. 24*, pp. 39-94.

[627] F. Bell et al., *AI Decision-Making and the Courts: A Guide for Judges, Tribunal Members and Court Administrators* (The Australasian Institute of Judicial Administration Incorporated, Australia, išpublikuota June 2022; peržiūrėta ir pakartotinai išpublikuota December 2023).

teisingumą ir procedūrinį sąžiningumą. Be to, M. Žalnieriūtė ir F. Bell[628] tyrinėjo, kaip technologiniai pokyčiai veikia teismų tapatybę ir institucinę dinamiką.

Apibendrinus šiuos tyrimus, matyti, kad vis daugiau dėmesio skiriama teismų technologinei transformacijai ir dirbtinio intelekto naudojimui sprendimų priėmime. Tačiau ši raida taip pat atskleidžia neišspręstas mokslinio lygmens problemas. Pirma, esami tyrimai išlieka fragmentiški – juose nagrinėjamos atskiros technologijos ar procedūrinės reformos, tačiau nesukuriamas sisteminis, doktrininis pagrindas, leidžiantis įvertinti jų bendrą poveikį teisės į teisingumą principui. Antra, stokojama lyginamosios analizės, siejančios nacionalinę patirtį su viršnacionaliniais standartais, todėl lieka neatsakytas klausimas, ar teismų modernizavimas dera su ES vertybėmis ir pagrindinėmis teisėmis. Trečia, skaitmeninių ir dirbtinio intelekto priemonių poveikis konkretiems teisės į teisingumą komponentams, tokiems kaip nešališkumas, vieši posėdžiai, teisių gynimo priemonių prieinamumas ar teisinė pagalba, iki šiol nėra nuosekliai ištirtas. Nei vienas iš esamų tyrimų nepateikia lyginamojo ar doktriniškai pagrįsto šių iššūkių vertinimo. Šio konceptualaus aiškumo ir sisteminio vertinimo stoka sudaro pagrindinę šios disertacijos mokslinę problemą: kaip turėtų būti konceptualizuojama ir užtikrinama teisė į teisingumą teismų technologinės transformacijos kontekste? Šioje disertacijoje siekiama užpildyti šią spragą, nuodugniai analizuojant, kaip įvairios technologijos veikia teisės į teisingumą principą ir jo pagrindinius elementus. Pirma, nė vienas iš minėtų autorių neatliko lyginamosios analizės, kaip skirtingų technologijų taikymas teismuose – nuo paprastų, administracinėms funkcijoms skirtų technologijų iki pažangių, naudojamų sprendimų priėmimo procese – keičia teisės į teisingumą elementų esmę ir turinį. Antra, disertacijoje tyrimas atliekamas atsižvelgiant į besikeičiančius socialinius santykius, technologinę pažangą, naujausią patirtį, todėl pateikiamos originalios išvados ir pasiūlymai. Trečia, disertacijos naujumas pasireiškia tuo, kad disertacijoje dalis tyrimo bus atliekama Lietuvos kontekste, kas suteikia unikalų nacionalinį aspektą. Galiausiai, ši disertacija siekia ne tik užpildyti akademinę spragą, išsamiai įvertinant teisės į teisingumą, jos elementų ir specifinių technologijų taikymo teismuose sąveiką, bet ir, autorės manymu, prisidėti prie praktinio teisės mokslo tobulinimo. Ji siekiama padėti teisėjams geriau suprasti, kaip veikia

[628] M. Zalnieriute ir F. Bell, 'Technology and the Judicial Role' in: G. Appleby ir A. Lynch (redaktoriai), *The Judge, the Judiciary and the Court: Individual, Collegial and Institutional Judicial Dynamics in Australia* (Cambridge University Press, 2021).

technologijos, kokį poveikį jos daro pagrindinėms žmogaus teisėms bei sprendimų priėmimo procesams, ir gilinti jų suvokimą apie teisminio sprendimų priėmimo ypatumus technologijų pažangos kontekste. Be to, šis tyrimas siekia parengti teisėjus naujų technologijų integravimui į teismų sistemas.

Be to, disertacija taps vertingu šaltiniu visuomenei, suteikdama įžvalgų apie technologijų naudojimą teismuose pasauliniu mastu ir padėdama asmenims geriau suvokti, kaip technologijos veikia jų teises, ypač teisę į teisingumą ir jos sudėtinius elementus, bei atpažinti galimus pavojus, kurie šioms teisėms gali kilti. Taip pat ji padės politikos formuotojams ir teisės specialistams nustatyti, kurias technologijas reikėtų diegti konkrečiose jurisdikcijose, ir užtikrinti, kad pasirinktos technologijos atitiktų teisinę sistemą bei teisės į teisingumą principą.

4. TYRIMO METODAI

Disertaciniame tyrime kompleksiškai remtasi bendraisiais mokslinio pažinimo metodais. Tarp daugelio tyrimo metodų, taikomų šioje disertacijoje, išskiriami šie pagrindiniai teoriniai ir empiriniai mokslinių tyrimų metodai, kiekvienas jų pasirinktas siekiant konkrečių tikslų ir sprendžiant tam tikrus tyrimo klausimus.. Lingvistinis tyrimo metodas leido įgyti pirminį teisės turinio supratimą ir identifikuoti tikslias teisines sąvokas. Jis buvo naudojamas tyrime siekiant atskleisti pagrindines tyrimo sąvokas (pavyzdžiui, teisė į teisingumą, teisingas teismas ir kt.) ir padėjo išsiaiškinti, kaip šios sąvokos vartojamos skirtinguose teisiniuose bei doktrininiuose kontekstuose. Sisteminio (kontekstinio) ir analitinio metodų pagalba, *inter alia*, siekta visapusiškai atskleisti Europos Sąjungos poziciją dėl technologijų naudojimo viešajame sektoriuje ir teismuose bei dirbtinio intelekto naudojimo teismuose. Šie metodai buvo panaudoti siekiant įterpti Šie metodai buvo panaudoti siekiant įterpti atitinkamas teisines sąvokas į platesnę idėjų ir vertybių sistemą ir išnagrinėti konceptualias tarpusavio priklausomybes tarp teisingumo prieinamumo elementų. Jie padėjo atsakyti į klausimą, kaip technologinės inovacijos sąveikauja su galiojančiais teisės principais ir doktrinomis. Istorinis metodas buvo taikomas visoje disertacijoje, siekiant atskleisti tiek institucinės sistemos, tiek fundamentalių teisinių sąvokų raidą. Istorinis metodas buvo taikomas visoje disertacijoje, siekiant atskleisti tiek institucinės sistemos, tiek fundamentalių teisinių sąvokų raidą. Instituciniu požiūriu jis pasitelktas tiriant, kaip laikui bėgant vystėsi ir keitė teisminius procesus tokios skaitmeninės infrastruktūros Lietuvoje kaip LITEKO ir elektroninių paslaugų portalas (e.teismas.lt). Konceptualiu požiūriu šiuo metodu analizuota, kaip

skaitmeniniame amžiuje transformavosi pagrindinės procesinės garantijos, pavyzdžiui, viešo teismo posėdžio principas. Plačiąja prasme istorinis metodas leido identifikuoti technologinių inovacijų ir teisės į teisingumą sąveikos tęstinumo bei pokyčių dėsningumus, parodant, kaip istorinės trajektorijos lemia dabartinius iššūkius ir formuoja būsimas galimybes.Lyginamasis metodas buvo taikomas, siekiant išanalizuoti, kaip skirtingos jurisdikcijos integruoja technologijas į teisminius procesus, ir nustatyti tiek galimybes, tiek rizikas, susijusias su teise į teisingumą. Šis metodas buvo taikomas dviem lygmenimis. Pirma, kalbant apie skaitmeninį teismų administravimą, analizėje daugiausia dėmesio skirta tokioms Lietuvos iniciatyvoms kaip LITEKO teismų informacinė sistema, nacionalinis elektroninių paslaugų portalas (e.teismas.lt) ir nuotolinių posėdžių praktika. Šie pavyzdžiai buvo pasirinkti ne tik dėl autorės tiesioginės patirties Lietuvos sistemoje, bet ir todėl, kad jie atspindi platesnę tendenciją daugelyje Europos jurisdikcijų diegti panašias platformas teismo procesams valdyti. Be to, asinchroniniai teismo procesai, nors dar neįdiegti Lietuvoje, buvo nagrinėti remiantis reformomis Anglijoje ir Velse bei novatoriškais Kinijos interneto teismais, siekiant įvertinti, ar tokia praktika galėtų padidinti efektyvumą ir prieinamumą Lietuvos bei platesniame Europos Sąjungos kontekste. Antra, kalbant apie teisingumo vykdymą, disertacijoje buvo nagrinėjamos jurisdikcijos, kuriose technologinė plėtra yra labiausiai pažengusi. Tyrime analizuoti algoritminio rizikos vertinimo įrankiai (pvz., COMPAS Jungtinėse Amerikos Valstijose) ir teisminių sprendimų priėmimo pagalbinės sistemos (pvz., „Prometea“ Argentinoje ir Kinijos išmanieji teismai). Kadangi tokios sistemos šiuo metu nėra diegiamos Lietuvoje ar kitose Europos Sąjungos valstybėse narėse, šios jurisdikcijos buvo pasirinktos kaip lyginamosios atvejų studijos, siekiant ištirti galimą pažangių technologijų poveikį esminiams teisės į teisingumą komponentams ir proaktyviai numatyti reguliacinius iššūkius, su kuriais artimiausiu metu gali susidurti Europos teismai. Apibendrinus, ši lyginamoji analizė turėjo tris tikslus: ji atskleidė gerąją praktiką, galinčią būti pritaikyta Lietuvoje ir Europos Sąjungoje; parodė rizikas bei apribojimus, kuriems būtinas atidus reguliacinis dėmesys; ir suteikė platesnį supratimą apie tai, kaip įvairūs technologinės integracijos lygiai, nuo skaitmeninio administravimo iki dirbtiniu intelektu pagrįsto sprendimų priėmimo, sąveikauja su teisės į teisingumą principu ir gali jį transformuoti. Galiausiai, visoje disertacijoje buvo taikomi loginis ir dedukcinis metodai , kurie padėjostruktūruoti argumentus ir formuluotiišvadas. Šie metodai sustiprino samprotavimo procesą, susiedami empirinius duomenis su doktrinine analize ir taip padėdami atsakyti į esminį klausimą,, kaip technologijų pažanga keičia teisės į teisingumą sampratą, ypač teisminių procesų ir kintančio technologijų

vaidmens teismuose kontekste. Be to, teleologinis metodas buvo taikomas aiškinant teisines nuostatas ir politikos formavimo dokumentus atsižvelgiant į jų platesnius tikslus ir uždavinius, ypač kai formuluotės buvo dviprasmiškos arba atviros interpretacijai. Tai buvo ypač aktualu analizuojant ES teisės aktus ir minkštosios teisės instrumentus teismų skaitmeninimo ir dirbtinio intelekto integravimo srityje. Teleologinis požiūris leido šioje disertacijoje išsiaiškinti, kaip tokias nuostatas reikėtų suprasti atsižvelgiant į svarbiausią tikslą – užtikrinti teisę į teisingumą. Šia prasme teleologinis samprotavimas pasitelktas kaip tiltas tarp teksto analizės ir normatyvinio vertinimo, užtikrinant, kad technologinių inovacijų teismuose vertinimas būtų nuosekliai atliekamas atsižvelgiant į pagrindinius teisės į teisingumą principus.

6. TYRIMO STRUKTŪRA

Disertacijos struktūra atitinka tyrimo objektą ir yra suderinta su disertacinio tyrimo uždaviniais. Disertaciją sudaro įvadas, trijų dalių dėstomoji (tiriamoji) dalis ir išvados.

Atsižvelgiant į tai, pirmoji tyrimo dalis skirta technologijų ir dirbtinio intelekto reguliavimo aplinkos Europos teismuose analizei. Pirmiausia nagrinėjamas platesnis skaitmeninės transformacijos kontekstas viešajame sektoriuje ir teismų sistemose, išskiriant europinį teisių apsaugos požiūrį į reguliavimą bei jo ypatybes. Toliau skyriuje analizuojamas pagrindinių Europos institucijų – Europos Tarybos, ES Tarybos, Europos Komisijos, Europos Parlamento ir Europos Komisijos Teisingumo Efektyvumo Komisijos – vaidmuo formuojant politiką, siekiančią suderinti technologines inovacijas su esminių teisinių principų apsauga. Esminė šios analizės dalis – vis labiau ryškėjanti įtampa tarp efektyvumo didinimo ir teisminės nepriklausomybės, teisės į teisingą procesą bei žmogaus teisių užtikrinimo, kai Europos teismai vis plačiau diegia skaitmeninius įrankius, automatizaciją ir dirbtinį intelektą. Šiame skyriuje, struktūruotai nagrinėjant reguliavimo iniciatyvas, iššūkius ir politikos atsakus, formuojamas pagrindas vertinti dirbtinio intelekto taikymo teismų sistemoje galimybes ir rizikas bei analizuoti, kiek jo diegimas atitinka teisinės valstybės principus ir teisę į teisingumą.

Antrojoje dalyje analizuojamas technologijų vaidmuo keičiant teismų veiklą – nuo administracinių funkcijų iki teisminių sprendimų priėmimo. Skyriuje išskiriamos administracinės ir teisingumo vykdymo funkcijos. Aptariami tokie technologiniai įrankiai kaip LITEKO teismo informacinė sistema, e-teismas.lt portalas, nuotoliniai posėdžiai ir asinchroniniai teismo procesai. Taip pat tiriamos dirbtinio intelekto galimybės ir ribojimai

teisingumo administravimo srityje, analizuojant, kaip jis gali ne tik padėti teisėjams sprendimų priėmimo procese, bet ir juos pakeisti. Be to, skyriuje nagrinėjamos jau esamos technologijos, padedančios teisėjams priimti sprendimus. Suskirsčius bylas į lengvas ir sunkias, analizuojamos dirbtinio intelekto ribos sprendimų priėmime.

Trečiojoje dalyje nagrinėjama, kaip technologijos keičia tradicinį teisės į teisingumą suvokimą, įvertinant tiek jų potencialą šį principą stiprinti, tiek rizikas, galinčias kelti grėsmę esminėms su juo susijusioms teisėms. Pirmiausia aptariami teisės į teisingumą principo konceptualūs pagrindai, analizuojama jo raida skaitmeninėje eroje ir tai, kaip skaitmeninės priemonės keičia viešojo posėdžio sampratą ir teisingumo vykdymą. Šiame skyriuje dėmesys sutelkiamas į tai, kaip technologijos stiprina teisę į teisingumą, gerindamos prieigą prie teismų ir teisinės pagalbos, gerindamos teisę būti konsultuojamam, ginamam ir atstovaujamam, bei skatina teismų nepriklausomumą ir nešališkumą. Taip pat aptariami technologijų keliami iššūkiai, įskaitant skaitmenines kliūtis patekti į teismus ir gauti teisinę pagalbą, naujas rizikas teismų nepriklausomumui ir nešališkumui, bei galimas grėsmes teisminio proceso sąžiningumui. Jame taip pat svarstoma, kaip didėjanti priklausomybė nuo technologijų gali pakenkti teisei į teisinį atstovavimą.

7. IŠVADOS

1. Siekiant užtikrinti procedūrinį teisingumą, teisminę atskaitomybę ir visuomenės pasitikėjimą, dirbtinis intelektas teismų sprendimų priėmime turi atlikti tik pagalbinę funkciją, o galutinė sprendimų priėmimo galia turi likti teisėjams. Teismai privalo nustatyti apsaugos priemones, kad būtų tinkamai užtikrinama jų pareiga motyvuoti sprendimus, išsaugomos procedūrinės garantijos ir užtikrinamas teisėjų nepriklausomumas, nepaisant dirbtinio intelekto taikymo. Dirbtinio intelekto sistemų taikymas kaip pagalbinės priemonės teismo sprendimų priėmime atspindi europietišką požiūrį, pabrėžiantį žmogaus priežiūrą kaip būtinybę išlaikyti atskaitomybę, ir atitinka konstitucinę nuostatą, kad teisingumą vykdo tik teismas. Tinkamai naudojamas dirbtinis intelektas gali padidinti teismų darbo efektyvumą – padėti susisteminti bylas, nustatyti jų prioritetus, identifikuoti teismų praktikos dėsningumus ir parengti sprendimų projektus, kartu užtikrinant, kad teisėjai išlaikytų savarankiškumą priimant galutinius sprendimus. Vis dėlto dabartinis dirbtinio intelekto

išsivystymo lygis riboja jo gebėjimą spręsti sunkias bylas, reikalaujančias subtilaus vertinimo, etinio mąstymo ir kontekstinio supratimo. Dirbtinis intelektas yra veiksmingiausias lengvose bylose – tokiose, kuriose keliami aiškūs teisės klausimai ir egzistuoja nustatyti precedentai. Tokiose situacijose jis gali supaprastinti sprendimų priėmimą ir sumažinti teismų darbo krūvį, suteikdamas teisėjams daugiau galimybių sutelkti dėmesį į sudėtingesnes bylas. Lengvų ir sunkių bylų dichotomija taip pat yra svarbi būsimiems svarstymams, nes net ir hipotetiniais autonominio dirbtinio intelekto taikymo scenarijais pirmiausia jam būtų deleguojamos lengvos bylos. Nors mažai tikėtina, kad dirbtinis intelektas pakeis teisėjus sprendimų priėmime artimiausioje ateityje tiek dėl teisinių, tiek dėl techninių priežasčių, ilgainiui, technologijoms ir visuomenės lūkesčiams vystantis, šis klausimas gali tapti vertas diskusijos.

2. Nuotolinių posėdžių integracija reikšmingai transformavo viešo posėdžio sampratą, perkeldama ją iš fizinių teismo salių į skaitmenines erdves, išlaikant prieinamumo, sąžiningumo ir skaidrumo principus. Šis pokytis išplėtė teisės į teisingumą ribas, pašalindamas geografines kliūtis, užtikrindamas platesnį dalyvavimą teismo posėdžiuose ir garantuodamas, kad teisminiai procesai galėtų vykti ir krizių metu, tokių kaip COVID-19 pandemija.
3. Teismų sistemų skaitmenizavimas reikšmingai išplėtė galimybę kreiptis į teismus, sumažindamas kliūtis keturiose pagrindinėse srityse: geografinėje, finansinėje, informacinėje ir technologinėje. Prie šios pažangos prisidėjo skaitmenizuoto teismų administravimo priemonės, tokios kaip nuotoliniai posėdžiai, elektroninio dokumentų pateikimo sistemos ir automatizuoti procesai. Nuotolinis dalyvavimas ir e. bylinėjimosi sistemos mažina geografinius apribojimus, automatizavimas leidžia sumažinti išlaidas, o skaitmeninės platformos palengvina prieigą prie bylos duomenų ir teisinių išteklių. Šie pokyčiai supaprastina procedūras, leidžia greičiau ir efektyviau priimti sprendimus. Tačiau skaitmenizacija taip pat sukėlė naujų iššūkių, kurie gali riboti galimybę kreiptis į teismus. Tokios problemos kaip skaitmeninio raštingumo trūkumas, prastas interneto ryšys ir ribota prieiga prie technologinių priemonių neproporcingai veikia pažeidžiamas grupes, todėl jos gali būti atskirtos nuo teisminių procedūrų. Be to, technologijos pakeitė procedūrinės lygybės principą, sukurdamos skirtumus tarp dalyvių,

turinčių skaitmeninių įgūdžių, ir tų, kurie jų neturi. Asmenys, turintys aukštesnį skaitmeninį raštingumą ir didesnes technologines galimybes, lengviau naviguoja šiuolaikinėse teisminėse procedūrose, teikia dokumentus ir dalyvauja nuotoliniuose posėdžiuose, o tai gali kelti grėsmę sąžiningumui ir procedūriniam balansui. Išlaikant tradicines prieigos prie teismų galimybes, plečiant skaitmeninio raštingumo programas ir gerinant technologinę infrastruktūrą, šios kliūtys gali būti sumažintos. Taip būtų užtikrinta, kad technologinė pažanga būtų prieinama visiems teismų naudotojams, kartu išsaugant procedūrinį teisingumą.

4. Technologijų integracija į sprendimų priėmimą daro didelę įtaką sąžiningumui ir bylos šalių teisėms, ypač rungimosi principui, šalių lygybei, teisei į pagrįstą sprendimą ir teisei į veiksmingą teisinę gynybą. Automatizuoti įrankiai ir dirbtinio intelekto sistemos, dažnai apsaugotos intelektinės nuosavybės teisėmis, veikia kaip „juodosios dėžės“, keliančios iššūkių šalims ir teisėjams suprasti arba ginčyti jų rezultatus. Dėl tokio skaidrumo stokos pažeidžiamas teisingumas ir veiksmingos teisės gynimo priemonės, kadangi apsunkina apskundimo procesą bei atima galimybę šalims nustatyti sistemos klaidas, šališkumą ar trūkumus. Autonominės dirbtinio intelekto sistemos dar labiau pablogina šias problemas, standartizuodamos sprendimus ir neatsižvelgdamos į bylos specifiką. Apsaugos priemonės, tokios kaip algoritmų skaidrumas, teisėjų mokymas, žmogaus priežiūra ir mechanizmai, leidžiantys ginčyti algoritmo teisėtumą, yra esminiai užtikrinant sąžiningumą, ginant proceso dalyvių teises ir išlaikant viešą pasitikėjimą teisingumo sistema.
5. Nors skaitmeniniai įrankiai gali padėti užtikrinti teismų nepriklausomumą ir nešališkumą, didindami skaidrumą ir nuoseklumą bei mažindami manipuliavimo galimybes, neskaidrių dirbtinio intelekto sistemų naudojimas kelia naujų grėsmių. Algoritmų neskaidrumas, automatizavimo šališkumas ir komercinių paslapčių apribojimai kelia grėsmę teisėjų gebėjimui savarankiškai argumentuoti ir paaiškinti savo sprendimus. Kad to būtų išvengta, sprendimų kontrolė turi likti žmogaus teisėjų rankose, o dirbtinio intelekto priemonės turi atitikti skaidrumo, atskaitomybės ir sąžiningumo standartus. Siekiant išsaugoti sąžiningumą ir autonomiją teismo sprendimų priėmime, būtina teikti prioritetą skaidrumui, teisėjų mokymui ir žmogaus priežiūrai.

6. Technologijų integravimas į teisminius procesus pagerina prieigą prie teisinio atstovavimo, mažindamas logistikos kliūtis, didindamas skaidrumą ir suteikdamas bylinėjimosi šalims daugiau galimybių dalyvauti procese. Ši pažanga suteikia teisės specialistams centralizuotą informaciją apie bylas ir teikia bylinėjimosi šalims įrankius savarankiškam atstovavimui, skatindama įtrauktį teisingumo srityje. Tačiau priklausomybė nuo neaiškių dirbtinio intelekto sistemų kelia riziką apsunkinti atstovavimą ir silpninti rungimosi procesą, apribojant galimybes suteikti išsamų teisinį atstovavimą. Kai dirbtinio intelekto sprendimai varžo teisės specialistų galimybes ginčyti, interpretuoti ir veiksmingai atstovauti klientams, rungimosi principas silpnėja, o esminės teisinės apsaugos priemonės tampa mažiau užtikrintos. Kad technologijos stiprintų, o ne ribotų teisę į teisingumą, turi būti užtikrinama žmogaus priežiūra, algoritmų skaidrumas ir patikimi apeliacijos mechanizmai. Teisės specialistai turi išlikti pagrindiniai teisingumo sistemos dalyviai, užtikrindami sąžiningumą, atskaitomybę ir visuomenės pasitikėjimą teisminiais procesais.

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11) Strikaitė-Latušinskaja, G. (forthcoming 2026). Balancing legal certainty and judicial discretion in AI-assisted adjudication. In M. Zalnieriute & A. Limante (Eds.), *The Cambridge Handbook of AI and Technologies in Courts*. Cambridge: Cambridge University Press.

LIST OF SCIENTIFIC EVENTS WHERE THE RESULTS OF THE DISSERTATION WERE PRESENTED

1) "Technologijos ir valstybė" (eng. Technologies and the State) (2019). Conference *GovTech2019: What, How, Why?*, Vilnius.
2) "Digital technologies in the public sector – exploring *terra incognita*" (2020). Conference *Governing Societal Challenges in Transformational Times*, Hasselt University.
3) Online dispute resolution: quo vadis, Europe?" (2020). 8th International Conference of PhD Students and Young Researchers *The Future Decade of the EU Law* (online).
4) "Nuotolinio administracinių bylų nagrinejimo teisinio reguliavimo ir technologiniai (ne)tobulumai" (eng. Legal regulation and technological (im)perfections of remote administrative court hearings) (2021). Webinar *"Nuotolinis administracinių ir civilinių bylų nagrinėjimas: žvilgsnis į ateitį"* (eng. *Remote Administrative and Civil Courts: A Glimpse into the Future)*
5) "Digitalisation of justice" (2021). Conference *Nuotolinė PhD LAB konferencija* (eng. *Remote PhD LAB Conference)*, Vilnius University Faculty of Law.
6) "AI and law" (2021). Webinar hosted by ELSA Azerbaijan Alumni Society.
7) "Europietiško požiūrio į dirbtinį intelektą paieškose" (eng. Searching for a European approach to AI" (2021). "Žmogaus teisės skaitmenizacijos amžiuje" (eng. Human rights in the digital age), Vilnius.
8) "The future of courts: can AI resolve all cases?" (2021). Conference *Moving Forward: Building Societal Resilience through Law*, Hasselt, Belgium.
9) "Technologies in the public sector – is our rule of law in jeopardy?" (2022). Conference *UNITOPIA – Digital Transformation as Democratic Moment*, Graz, Austria.
10) "Online courts: status quo and quo vadis?" (2022). 9th Conference of PhD Students and Young Researchers *Everything You Always Wanted to Know About Law (But Were Afraid to Ask)*, Vilnius.
11) "The use of technology in courts in light of the principle of the rule of law" (2022). Joint Conference of Vilnius University and University of Graz, Graz, Austria.
12) "Rule of Law: Threshold to Courts R(evolution)" (2022). Conference *Back to the Basics: Using Fundamental Principles of Law to Address Contemporary Challenges*, Hasselt, Belgium.

13) “Avatars in courts” (2024). Conference *Living with Personal AI Agents: Risks, Challenges, Opportunities*, Vilnius.
14) “Balancing efficiency and fairness: automated administrative orders in Lithuania” (2024). With Jurgita Paužaitė-Kulvinskienė. Conference *The Law of the Algorithmic State*, Trieste, Italy.
15) “AI systems to support vs to supersede judges in decision-making: European perspective” (2024). Conference *Human Centric AI: Ethics, Regulation, and Safety!*, Vilnius.

INFORMATION ABOUT THE AUTHOR

Education:
2019 – 2025 PhD studies, Vilnius University Faculty of Law.

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