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Judicial Reform in the Era of Digital Democracy from the Perspective of Ensuring the Rule of Law: The Perspective from Poland and Lithuania

Abstract: In this article, we explore the complex challenges and opportunities arising from the digital transformation of the judiciary in the context of modern democratic societies, with a particular focus on Poland and Lithuania. As digital tools increasingly shape how justice is administered, ensuring the rule of law, transparency, and fair trials remains a central concern. We analyse the legal, institutional, and technological aspects of judicial reforms, including the use of remote hearings, algorithmic decision-making, online access to court services, and the risks of digital exclusion. Drawing on European standards, we highlight the need to strike a careful balance between innovation and fundamental rights. By examining recent legislative initiatives, court practices, and comparative insights from both countries,

this article contributes to the broader discourse on the legitimacy, efficiency, and accountability of digital justice systems in a democratic setting.

Keywords: e-democracy, e-justice, judicial reform, access to justice, fair trial, digital justice

Introduction

When the impact of e-democracy on the justice system is analysed, it is essential to emphasize that the widespread adoption of the internet has led to the development of new organizational and technical platforms for the democratic process, paving the way for so-called 'digital democracy' (Pianini & Omicini, 2019, p. 84). The popularization of other digital technologies, such as big data and artificial intelligence, has contributed to the world entering an era characterized by the transformation of information into valuable yet highly advanced resources (Horváth et al., 2025, p. 107). The digital revolution is currently bringing about fundamental changes in many areas. Technologies that only existed in theory a few decades ago are now ubiquitous and shape the way we communicate, work, learn, and make decisions, which also affects the structure of a democratic state governed by the rule of law and the functioning of its justice system. From the perspective of such states, people who are digitally excluded or at risk of exclusion must not be overlooked. In other words, in the era of digital democracy, the use of technological solutions offers on the one hand significant potential for increasing citizens' access to decision-making processes and public institutions. On the other hand, however, this development brings with it a very real risk of digital exclusion, which may result in the marginalization of groups that were already on the sidelines of social and political life.

Attention should also be paid to the principle of privacy, which is key from the perspective of the rule of law. It is seen as a foundation of democracy because without it, there is an increased risk of individuals using their power to influence others (Jansen & van den Hoven, 2015). Digital democracy consumes large amounts of data, and public services that are more targeted, tailored to needs, cheaper, and faster actually require intensive data use (Squeo, 2023, p. 61). For this reason, the design and implementation of new tools requires the creation of an appropriate regulatory framework; otherwise, we will face a serious threat to individual privacy.

The topic of this article is related to the need to analyse the relationship between digital transformation, judicial reform, and the maintenance of (or threat to) the rule of law. At the heart of this analysis is the question of how judicial reforms carried out in the era of digital democracy affect the implementation of the rule of law. The main objective of the study is to identify the risks and benefits associated with the digitization and computerization of the justice system, as well as to assess whether and to what extent the technologies being implemented, such as automation, remote access tools, and decision-support systems, remain consistent with constitutional guarantees of a fair trial, the independence of courts, and the transparency of public institu-

tions. The analysis focuses on assessing the compliance of digital solutions with the fundamental principles of a democratic state governed by the rule of law and on comparing the models adopted in countries whose legal systems and judicial reforms we examine from an internal perspective, i.e. Poland and Lithuania.

This article aims to examine several interrelated hypotheses concerning the digital transformation of the judiciary and its implications for the rule of law. First, it is assumed that the ongoing digitalization of judicial processes may strengthen the rule of law only to the extent that transparency and procedural safeguards are effectively maintained. Second, digital innovation in the courts can enhance citizens' access to justice and their participatory role, provided that both technological constraints and users' diverse needs are adequately addressed. Third, the broader process of judicial reform undertaken in the era of digital democracy may enhance the legitimacy of the justice system. Nevertheless, poorly designed or politically driven digital measures may, conversely, endanger judicial independence and the right to a fair trial. Furthermore, the study assumes that it is possible to achieve a balance between efficiency and fairness; digital tools can promote transparency and uphold procedural rights if implemented with due respect for the roles of all participants in judicial proceedings. Finally, the research acknowledges that technological change is not merely technical but transformative, as emerging technologies reshape the way legal and political decisions are made. For this reason, any sustainable digital transformation of justice must begin with a thorough assessment of institutional capacities and systemic needs.

This choice is justified by the availability of sources and knowledge of local institutional conditions, as well as the dynamic nature of reforms in the area of digitization and computerization of the justice system in both countries. This approach enables the analysed cases to be situated within a broader comparative legal context, even if these references are not the subject of in-depth case studies. In particular, the elements of the reforms aimed at increasing the efficiency of the courts and access to justice, which may at the same time pose a risk of restricting the procedural rights of parties to proceedings, were subject to verification. Richard E. Susskind (2019, p. 368) has examined the transformative potential of online courts in enhancing access to justice. In this context, it was assumed that digital technologies can strengthen the rule of law, provided that they are implemented transparently, with respect for procedural guarantees and judicial and civic control mechanisms. Alternatively, it is assumed that the improper implementation of digital tools – especially without public consultation and without a clear legal framework – may lead to the erosion of fundamental standards for fair trials. This article is based on a comparative and dogmatic legal analysis, taking into account standards developed by international institutions (including the Council of Europe and the European Union), as well as the practices of Poland and Lithuania in implementing digitalization models for the justice system. The Lithuanian experience is significant, as it is more advanced in terms of technology and institutions and has been a considerable

inspiration for assessing the opportunities and threats associated with the digital transformation of the justice system in Poland.

1. The role of digital democracy

The impact of information and communication technologies on the relationship between the state and its citizens can be described using terms such as internet democracy, digital democracy, cyberdemocracy, virtual democracy, or, more commonly, electronic democracy (Musiał-Karg & Kapsa, 2020, p. 145). Digital democracy, which is evolving in response to shifting communication and technological conditions within societies, refers to a radically new form of democratic practice modified by new information technologies. Regardless of the name or scope of the definition, a common feature of these concepts is the belief that new technologies (which provide an interactive dimension, faster information transfer, and feedback) make it possible to influence democratic mechanisms (Friedland, 1996; Hagen, 1997). They are understood as a form of action by the authorities, whereby public authorities and public administration bodies are required to counteract any trends that are detrimental to national security. As a result, government administration and local government bodies can provide more efficient and practical assistance in crises related to information and electronic communication technologies (ICT) infrastructure if third-sector organizations offer professional support (Chałubińska-Jentkiewicz, 2019, p. 292). The use of digital technologies also broadens and deepens civic participation, as well as increasing the transparency of public life. In this model, citizens not only vote but can also take action in public consultations on an ongoing and rapid basis, express their opinions online, submit electronic petitions, participate in digital participatory budgeting, and even co-create laws through legislative crowdsourcing tools. Both models of democracy, traditional and digital, are based on a common political principle that decisions should be made transparently and that individual rights must be protected.

However, the tools and scope of civic activity are what differentiate the two models. The role of ICT boils down to verifying whether e-democracy (digital democracy) encompasses only the aspect related to the provision of a specific public service by public administration bodies. In this context, it should be verified whether this provision is based solely on management (e-government in the narrow sense). In such a situation, mutual interaction involves the performance of a public task for the benefit of the individual and, on the other hand, the performance of a duty by the citizen for the benefit of a specific authority. The second issue that should be considered is whether e-democracy refers not only to the distributive function of administration, but also includes elements of public participation in public life (e.g. the right of access to public information, e-consultations, e-petitions, e-voting). Both issues play

a crucial role in shaping digital democracy, and must work together to ensure that changes in policy and strategy for the development of electronic communications in EU Member States are practical and efficient.

Polish literature on the subject expresses the view that electronic administration is synonymous with electronic democracy (Skoczylas, 2023, pp. 327–328). This is justified by the fact that the development of electronic administration procedures is intended not only to improve the efficiency of public institutions, but also, and above all, to have a substantial impact on the model of modern democracy. In this view, ICTs are a tool that transforms the state to a much greater extent; this approach prevails over the view that ICT is a technological innovation that allows for the streamlining of bureaucracy (Porębski, 2013, pp. 61–62). This means that it should be efficient, streamline administration, and increase the effectiveness of interactions between citizens and the state. There is no doubt that digital democracy removes many barriers, including temporal, geographical, and organizational ones. At the same time, it enables not only faster, but also broader access to decision-making processes. Due to the use of modern technological solutions, its application imposes numerous obligations on state authorities, including the need to ensure cybersecurity, personal data protection, the transparency of algorithms, counteracting disinformation, and, most importantly, preventing digital exclusion.

An essential aspect of e-democracy is its impact on the relationship between citizens and the state. In the classical view, democracy is based on trust in institutions and their representatives. Digital democracy, on the other hand, is compelled to consider non-human factors, namely technology, algorithms, and automated decision-making systems, in civic processes. While the classic model of democracy relies on modern technologies to support its everyday functioning, in the case of e-democracy it seems reasonable to assume that technology is co-shaping it. This not only applies to communication and logistics, but also covers a much wider range of areas. In this context, the fundamental challenge for digital democracy is to ensure that non-human factors are transparent, controllable, and consistent with democratic values. It is unacceptable to shape e-democracy in such a way that modern tools contradict the idea of a democratic state governed by the rule of law. Access to digital public space enables access to diverse content, and this in turn ensures pluralism, fosters open public debate, and promotes effective participation in democracy. The consequence is civic engagement in the digital space (Małecka-Łyszczek, 2024, pp. 15–20 Recital 18 of Decision (EU) 2022/2081 of the European Parliament and the European Council clearly emphasizes that democracy and key public services depend significantly on digital technologies; at the same time, it points out that every citizen and business should be able to interact digitally with public administrations. In light of the wording of Recital 18, it can be inferred that universal access to digital interaction is the foundation of effective digital democracy. This should be understood as the basis for equal access to services, regardless of place of residence or social status.

Furthermore, digital services must be designed with the needs of users, citizens, and businesses in mind, and should be transparent, intuitive, easy to use, and easy to understand. This builds trust in e-democracy. A high-quality digital environment is also essential, which should be directly linked to the reliability, efficiency, and personalization of services. Citizens should feel that systems are designed to help them, not to make their lives more difficult. Achieving this goal is directly linked to the need for investment in infrastructure and software that can meet these requirements. Digital democracy aims to digitize all key services, especially those related to significant events in people's lives (e.g. birth, education, employment, starting a business). The EU legislation pays particular attention to electronic medical records, which perfectly reflects the potential for improving quality of life through digitization. While classical democracy is based on trust in institutions and their representatives, digital democracy assumes more frequent, direct, and dynamic interactions, and is associated with control over public administration through the use of modern tools (Viegas et al., 2022, p. 342). Public institutions must be able to respond quickly to social signals, open up to data, and enable dialogue and co-management, which requires not only new tools, but also a change in administrative and legal culture. Both models should complement each other: digital democracy does not replace classical democracy but can strengthen and update it, provided that it is developed in an inclusive, responsible, and lawful manner. It is important to note that despite the drive towards digitalization, people who for various reasons (e.g. lack of internet access, lack of digital skills, disability, reluctance, exclusion or being at risk of exclusion) are unable to use online services or do not want to exercise their rights in this way cannot be excluded. Consequently, services should be designed to ensure access for all while providing alternative access channels (e.g. support in using IT systems or offline access).

Also noteworthy is the wording of Recital 19 of the Decision (EU) 2022/2081, in which the legislation deepens the perspective of digital democracy, going beyond mere access to services and focusing on its broader, transformative social effects. Digital technologies should be seen as a catalyst for positive social change; they are not an end in themselves but should be used as a tool to achieve broader social effects. This means that, from the perspective of e-democracy, digitization should serve to improve the daily lives and well-being of citizens. This applies to faster online services, and also has a tangible impact on the quality of life, which can be related to better access to information or education, and to the possibility of more active participation in public life. Designing solutions based on this principle will help to emphasize the humanistic and social dimension of digital democracy. In this regard, digital transformation is directly linked to democratic values and is a fundamental principle of digital democracy, as digital technologies must support, not undermine, the basic pillars of a democratic state. This means that digital technologies can contribute to more effective, transparent, and accountable governance.

To sum up, digital democracy should be recognized not only as a technology, but above all as a philosophy of state governance that continues to place citizens at the centre. Its goal is to facilitate everyday life, increase the availability of services, and strengthen trust in public administration through digital tools. It cannot be implemented in a way that marginalizes the need for inclusiveness and security; its success depends on whether it serves to strengthen democratic values, promote good governance, ensure social inclusiveness, and bring about real improvements in the quality of life of citizens.

2. Challenges for the judiciary in the digital age

As European judiciaries undergo rapid digitization, courts face opportunities and challenges. On the one hand, digital tools promise greater efficiency and accessibility: the EU notes the ‘enormous potential’ for digital and AI systems to improve access to justice for all (European Commission, 2025). There is no doubt that, from a technical perspective, AI systems will generally outperform humans in tasks that require precision, repeatability, and the processing of large amounts of data within a short timeframe. However, this does not mean that they can be guaranteed to perform the tasks entrusted to them in a manner that can be considered socially appropriate (Rejmaniak, 2021, p. 26). On the other hand, these innovations raise serious questions about how to uphold fundamental rights and the rule of law in an online environment. This section examines the key challenges facing Europe’s courts in the digital age, including access to justice, data protection, judicial independence, and the application of AI in adjudication.

Moving court processes online can inadvertently create ‘digital divides’ that undermine equal access to justice (European Commission, 2025). To promote a fair and balanced justice landscape across Europe, it is essential to reduce any such divides. Not all citizens have the necessary internet access, equipment, or digital literacy to engage with e-justice services: nearly half of Europeans lack basic digital skills (European Commission, 2025), a statistic that highlights the scale of potential exclusion. Vulnerable groups – such as older people, low-income individuals, or rural populations – are at particular risk of digital exclusion if paper-based or in-person alternatives are unavailable. The European E-Justice Strategy (2024–2028) explicitly calls for bridging this divide, warning that unequal access to digital justice ‘creates inequality in access to justice’ overall, and can become ‘a potential source of exclusion’ (European Commission, 2025). Courts must therefore pursue a people-centric digital transformation: services should be user-friendly and inclusive by design, with accommodations for those unable or unwilling to use technology, and, importantly, non-digital channels must be maintained as a safeguard against potential disruptions. For example, even as filings and hearings move

online, many jurisdictions continue to accept paper submissions or provide physical kiosks and assistance for self-represented litigants.

In 2018 the Law of the Republic of Lithuania on Electronic Identification and Trust Services for Electronic Transactions entered into force. Its purpose is to create a legal basis for the effective operation of electronic identification and the market of trust services in the Republic of Lithuania, in order to ensure the best possible protection of the interests of the users of these services. The Law regulates the legal effect of electronic signatures, electronic seals, electronic time stamps and trust services, as well as the obligations of trust service providers and users. It also governs the conditions and procedures for the suspension and revocation of qualified certificates for electronic signatures, electronic seals, and website authentication. Furthermore, it provides for the supervision of trust service providers in matters not regulated by Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market (OJ 2014 L 257, p. 73) and by implementing acts adopted by the European Commission on that basis. The Law additionally regulates electronic identification and designates the competent authorities responsible for trust services.

As court proceedings and records migrate to digital platforms, privacy and data protection have become one of the biggest concerns. Judicial systems handle vast amounts of sensitive personal data (from case files to recordings of hearings), raising the stakes for cybersecurity and GDPR compliance. European courts are obliged to safeguard the confidentiality and integrity of judicial data at the same level as in traditional settings. The Council of Europe's guidelines on cyberjustice emphasize that data protection principles, along with data quality and security, 'shall be ensured' in digitalized judicial processes (CEPEJ, 2021). This means e-filing systems must employ encryption and authentication; case management databases require strict access controls and audit trails, and any sharing of data across agencies or borders must respect privacy laws. An additional challenge is reconciling the ideal of open justice (the publishing of decisions for transparency) with the need for personal privacy. Likewise, courts must carefully manage audio and video recordings of hearings, preventing unauthorized dissemination and ensuring that any live streams do not compromise the confidentiality of witnesses or the right to a fair trial. The EU's e-justice strategy emphasizes respect for fundamental rights in all digital initiatives, and highlights risks that could erode public trust, such as cybersecurity breaches or personal data leaks. In response, judiciaries are increasingly adopting a 'data protection by design' approach, where privacy considerations are built into new IT systems from the outset (CEPEJ, 2021).

The digitization of justice also poses other dangers to judicial autonomy and independence. One concern is that digital case management systems and algorithms might shift control of judicial decision-making processes away from judges (Limantė et al., 2025, p. 8). Another concern is the role of private tech companies that provide

court IT infrastructure, from cloud services to videoconferencing platforms; heavy dependence on external vendors, especially those that control critical data or algorithms, could indirectly impact judicial independence (Castets-Renard & Eynard, 2023). The European Network of Councils for the Judiciary (ENCJ, 2017) has cautioned that judiciaries must be closely involved in developing and governing e-justice tools: judges and court administrators, not just ministries or IT firms, should set the requirements to ensure that judicial values (such as independence and fairness) are embedded in the technology.

A related concern is the use of performance analytics on judges' work. Digital systems enable easy tracking of how fast judges resolve cases or how often their rulings are upheld. While such data can improve efficiency, there is a risk that it could be misused to pressure judges or undermine their decisional independence. Any evaluation criteria must therefore be carefully balanced so that judges feel free to decide cases on the merits, not to satisfy metrics. Ultimately, maintaining judicial independence in the digital era requires transparency, oversight, and a reaffirmation that technology will remain a tool subordinate to human adjudication, not a replacement for it. Therefore digital literacy, especially literacy in artificial intelligence, is essential for judges (Limanté et al., 2025).

Perhaps the most complex challenge is the rise of artificial intelligence in court operations and even in decision-making. Justice systems across Europe are increasingly exploring the use of AI technologies through various pilot initiatives (Mukhtar & Siddiqah, 2025). They offer excellent benefits: speeding up document review, suggesting relevant precedents, and even assisting in drafting decisions. However, if not adequately regulated, the use of AI poses significant risks to the principles of fairness and the rule of law. While the EU Artificial Intelligence Act (Regulation (EU) 2024/1689) has brought greater clarity regarding the use of artificial intelligence in judicial contexts, the absence of formally adopted standards across Europe leaves uncertainty as to which AI systems are suitable for deployment in courts. Given the potential impact on individual rights and judicial independence, AI applications in judicial proceedings are most likely to fall under the category of high-risk systems within the meaning of the EU AI Act.

One primary concern is algorithmic bias. AI tools trained on past judicial data might uphold historical biases or discrimination, thereby undermining the right to an equal and fair trial. The EU has explicitly warned that 'unconscious discrimination due to biased algorithms or datasets' (European Commission, 2025) is a new challenge brought by digitization. A related issue is the 'black-box' opacity of many AI models; if a judge or litigant cannot understand how an algorithm arrived at a recommendation, this conflicts with the transparency required of judicial reasoning (Socol de la Osa & Remolina, 2024, p. e59). Generative AI tools, such as large language models capable of drafting legal texts, pose a potential threat to judicial independence by introducing the risk of undue influence on legal reasoning (Socol de la

Osa & Remolina, 2024, p. e59). Judges using these tools must remain the ultimate arbiters, consciously verifying and correcting AI outputs. European bodies have begun to address these risks: the Council of Europe's Ethical Charter on the Use of Artificial Intelligence in Judicial Systems (CEPEJ, 2018) and the EU Artificial Intelligence Act establish key guiding principles, including the requirement that AI systems respect fundamental rights, operate without bias, ensure transparency, and remain subject to human oversight. However, significant challenges persist, particularly concerning the practical implementation and enforcement of these principles across jurisdictions. This implies that AI should serve a strictly supportive function within judicial proceedings, such as assisting in the organization and analysis of information. At the same time, the ultimate responsibility for decision-making must remain exclusively with judges. In the future, ongoing judicial AI literacy training will be essential to ensure that the benefits of such technologies are realized without the principles of fairness, accountability, and public confidence in the justice system being compromised.

3. Digital technologies as an opportunity for the legal system and the judiciary

Applying the above considerations to the issue of law and the judiciary, it should be noted that modern technological solutions have a profound impact on the functioning of the justice system in its broadest sense. Digital transformation affects not only proceedings but also institutional structures, the relationships between actors, and the implementation of fundamental rights. It is first necessary to identify the groups of participants in this system who are directly affected by the digital transformation. This concerns four categories of relationships: a) citizen–judicial authority; b) participant in proceedings or their professional representative–judicial authority; c) judicial authority–administrative staff; d) government/Minister of Justice–judicial authorities. A common feature of all relationship models is that electronic interactions can strengthen the position of citizens on three primary levels: a) direct participation in political life; b) accessibility, referring both to easy access to public government information and to access to online services provided by e-government; c) the ability to monitor and influence government decisions (Ronchi, 2019, p. 64). From the perspective of the justice system, digital tools enhance citizens' ability to access information, reduce barriers to entry, and reinforce their sense of agency.

When analysing the above levels from the perspective of the justice system, it is worth noting that although citizens do not participate directly in adjudication (except for lay judges, for example), digital tools enable them to actively use IT tools, which strengthens their sense of agency and reduces the barrier to entry into the justice system. Accessibility should be understood as referring to the transparency and accessibility of digital justice. The digitalization of the judiciary enhances access to rulings,

reasoning, court schedules, and online services. In the area of oversight and influence, such as citizen oversight of the judiciary, electronic interactions enable public monitoring of court activities based on publicly available data, thereby increasing accountability and transparency. In this respect, citizens not only gain greater knowledge, but also the ability to exert constructive pressure on institutions to improve the quality of justice.

In the first group of relationships, i.e. between citizens and judicial authorities (the so-called citizen level), it is essential that, from the citizen's perspective, digitization enables greater access to legal information, including legal acts, case law, and public registers. Polish examples include the Portal of Common Court Judgments (<https://orzeczenia.ms.gov.pl/>), the Internet System of Legal Acts (<https://isap.sejm.gov.pl/>), and the Central Database of Administrative Court Judgments (<https://orzeczenia.nsa.gov.pl/cbo/query>). The solutions introduced in this area serve as the foundation for an informed civil society and the enforcement of rights, while also increasing the transparency of the legal system. They contribute to the implementation of Article 45 of the Constitution of the Republic of Poland (the right to a fair and public hearing) and Article 6 of the European Convention on Human Rights (which guarantees access to justice and transparency of proceedings). They also indirectly contribute to building and raising legal awareness among the public.

Digital accessibility policies also mitigate the risk of digital exclusion by ensuring that public legal information remains free and open. In addition, digital platforms used by public administrations contribute to increasing citizens' participation in legislative processes, e.g. by enabling them to submit comments and opinions on draft legislation. These solutions strengthen the legitimacy of legislative processes, supports the democratic legitimacy of lawmaking, and corresponds with the principles of open government. E-democracy also has a direct impact on the expansion of the catalogue of fundamental rights and freedoms, to include those related to the use of modern technological solutions known as digital rights (e.g. the right to privacy on the internet or the right to be forgotten). These rights are now recognized under the GDPR (European Parliament, 2016) and Article 8 of the Charter of Fundamental Rights of the EU (European Union, 2000). The protection of these rights is becoming a key element of digital democracy. Solutions that introduce the digitization of processes (e.g. in public procurement) are crucial for the legal system and the effective implementation of the rights. In this case, good governance is secured by minimizing the risk of interference aims at achieving individual benefits.

When analysing manifestations of e-democracy in the relationships between participants in proceedings, their representatives, and judicial authorities (e.g. courts or prosecutors), particular attention should be paid to the impact of ICT systems on procedural transparency. Electronic court schedules, access to case files, or information about cases using dedicated ICT systems, and sometimes even the possibility of initiating court proceedings electronically, are now standard in modern society. The delivery of procedural documents to professional representatives via a dedicated

platform reduces the need for personal visits to court, increasing the transparency and comprehensibility of the judicial process. These solutions are grounded in Articles 148¹ and 151 §2 of the Polish Code of Civil Procedure, which regulate remote hearings and electronic submissions.

The modernization of the justice system must not result in anyone being deprived of the right to a fair trial. . This reflects the guarantees of Article 47 of the Charter of Fundamental Rights of the EU and the principle of equality of arms. These solutions not only build public trust, but also enable social control. Digital technologies also reduce geographical, financial, and physical barriers to accessing courts, e.g. by allowing participation in so-called remote hearings or the examination of witnesses or experts via videoconferencing. This aligns with the Council of Europe's European Ethical Charter on the use of Artificial Intelligence in judicial systems (CEPEJ, 2018), which promotes the development of AI tools that enhance accessibility, efficiency and fairness in judicial proceedings. This is particularly important for people living in remote areas, older people, people with disabilities, or those unable to appear in person due to increased professional responsibilities (which is characteristic of court experts who are specialists in narrow fields of science). In this respect, the burden of physical appearance in court is transferred to the digital sphere, which not only removes geographical and financial barriers, but also has a positive impact psychologically, eliminating or reducing stress, for example. A direct effect of these solutions is also the acceleration of court proceedings, which is particularly evident in the elimination (or reduction) of paper files, the introduction of electronic document circulation, and the delivery of procedural documents using an ICT system. This not only speeds up proceedings, but also reduces costs and minimizes the risk of documents getting lost.

Contemporary law increasingly utilizes LegalTech and RegTech tools to support the processes of analysing, applying, and enforcing the law (Szostek, 2021a, p. 45; Szostek, 2021b, pp. 3–10). A significant qualitative change can be observed in the internal functioning of judicial authorities. Case management systems enable more effective tracking of case progress, deadline management, task allocation, and verification of task completion (Mummalaneni & Challa, 2024, p. 158). These systems contribute to the principle of accountability and transparency, improving oversight within judicial administration, and improve access to all necessary documents and information in one place. The digitization of files, either in whole or in part (e.g. in the area of procedural documents, as currently observed in Polish civil proceedings), increases the accessibility of documents and enables them to be accessed from anywhere. Internal transparency is also essential. The introduction of appropriate tools ensures easier control over case processing, which in turn has a positive impact on accountability. The use of artificial intelligence, particularly decision-support tools, can also assist authorities in data analysis, identifying similar cases and preparing draft decisions. This offers new opportunities but also raises questions about transparency and human oversight. The Council of Europe's Ethical Charter on the Use of

Artificial Intelligence in Judicial Systems (2018) stresses that AI must remain subordinate to human decision-making and cannot replace judicial discretion.

In the relationship between the judiciary and the government or the Minister of Justice, it is important to distinguish those activities in which ICT provides large amounts of data on the functioning of courts (e.g. the number of cases, the duration of proceedings, or the workload of individual courts). This has a positive impact on the ability to monitor the effectiveness of the judiciary, identify problems, and plan strategically. However, the collection and use of such data must respect the constitutional principle of judicial independence, enshrined in Articles 173–178 of the Constitution of the Republic of Poland, and must prevent any executive interference. It is also essential that IT systems do not allow the executive branch to interfere with the independence and impartiality of the judiciary, which is the foundation of the judicial system's functioning.

ICT in the judiciary cannot be viewed solely in terms of technical modernization. Digitalization represents a structural transformation that requires not only technical capacity, but also ethical awareness and digital literacy among judges, prosecutors, and court staff. Modern solutions lead to a more accessible, transparent, and, most importantly, effective justice system. However, it is essential to remember that the digitization of law and justice presents challenges that must be considered in a digital democracy. Foremost among these are guarantees of cybersecurity and the protection of personal data, which underpin public confidence in justice. In this case, it is of utmost importance to create and provide access to systems that ensure the highest standards of cybersecurity. Digitization also requires a change in mentality and skills, on the part of the participants in proceedings and their representatives, and above all on the part of legal professionals (in particular judges and prosecutors) and administrative staff. The digital transformation of law and the judiciary is one of the most critical manifestations of e-democracy. However, it must be implemented responsibly, ensuring a balance between innovation and the protection of fundamental rights and freedoms. Its success depends on maintaining a balance between technological innovation and the protection of fundamental rights and procedural guarantees. The principles of transparency, proportionality, and accountability must remain central to all reforms to ensure that efficiency never undermines the rule of law or judicial independence.

4. Digital reforms in the Lithuanian judiciary

On 2 December 2022, the European Commission adopted the Communication on Digitalisation of Justice in the European Union (Vėbraitė & Strikaitė-Latušinskaja, 2023). Over the past two decades, Lithuania has implemented wide-ranging reforms to modernize its court administration – from electronic filing to AI-driven tools – while grappling with issues of equality, ethics, and infrastructure (Gaubienė,

2023, p. 7–9.). Lithuania began investing early in court IT systems. The Lithuanian Courts Information System (LITEKO), launched in 2004, created a unified electronic case registry for all courts (Vėbraité, 2020). Building on this foundation, the country introduced the Electronic Services Portal for Courts (e.teismas), which enables the online filing of documents, tracking of case progress, and electronic service of judicial documents. Adoption of e-filing has skyrocketed – by 2022, 86% of all civil and administrative cases in Lithuania were handled electronically via the e.teismas portal (Greičienė, 2023). This high uptake reflects both strong institutional support and user acceptance of digital case management. Courts have also adopted virtual hearings, which were accelerated by the COVID-19 pandemic (Vėbraité, 2020). Under Article 34(7) of the Law on the Courts of the Republic of Lithuania, the hearing of cases and the participation of the persons involved in the case can be ensured using ICT (through video conferences, teleconferences, etc.), in accordance with the procedure established by the Minister of Justice, coordinated with the Council of Judges. Using these technologies, reliable identification of the persons participating in the case, objective recording and presentation of data (evidence), and access to procedural rights and publicity of the trial in court, as well as confidential communication with the lawyer (representative) for the persons participating in the case, must be ensured. Further, Article 34(8) of this Law stipulates that when the case is examined through oral proceedings using secure ICT (via video conferences, teleconferences, etc.), the members of the panel of judges can participate in the court session from different premises of the court. During such hearings, the persons participating in the case may be in different court or non-court premises. Moreover, Article 37(1) (1) states that electronic data related to court proceedings are processed, recorded, and stored in courts using ICT, in accordance with the procedure established by the Council of Judges, coordinated with the Chief Archivist of Lithuania.

The Lithuanian Code of Civil Procedure not only explains how electronic communication technologies are used in civil procedures, but also promotes the possibility of initiating a case electronically, as Article 80(7) states a particular economic benefit: when procedural documents and their annexes to the court are submitted only by an electronic means of communication, and when a wish to receive procedural documents only by these means is expressed, only 75% of the amount of the stamp duty has to be paid. Article 175(1) explains how electronic communication technologies are used in civil procedures. Article 175(2) specifies that the examination of cases and the participation of persons participating in the case may be ensured by using ICT (via video conferences, teleconferences, and otherwise), in accordance with the procedure established by the Minister of Justice, coordinated with the Judicial Council. To sum up, videoconferencing is now widely used in court activities, enhancing transparency by enabling the public to observe remote hearings online in real time (Greičienė, 2023). This also supports the possibility of saving time and costs for the procedure.

Innovations in criminal procedure law have also gone hand in hand with those in civil procedure. Article 8(1) of the Lithuanian Code of Criminal Procedure implemented the possibility of processing criminal case data and serving procedural documents using ICT. Article 8(2) allows the use of ICT in criminal proceedings. Attention should be drawn to the position of the European Court of Human Rights, which, in its case law referring to videoconferencing as a form of participation by the accused in criminal proceedings, notes that as a general rule, this is incompatible with the concept of a fair and public hearing. However, in the Court's view, the use of this technology must serve a legitimate aim in each case, and the procedures for providing explanations and participating in the hearing must comply with the requirements of a fair trial (Kulesza, 2021, p. 207). The digitization of the justice system as a response to contemporary challenges is indeed a permanent feature of the transformation of judicial institutions. Digitization and the use of modern technological tools must not lead to a lowering of the standards that result from Article 6 of the ECHR, i.e. the right to a fair trial (European Union, 1950¹).

Most recently, Lithuania has ventured into AI applications within the judiciary – albeit in a cautious and supplementary manner. In January 2025, the Lithuanian Supreme Court launched a pilot AI system called 'TeDIA', an acronym for Teismo Dirbtinio Intelektu Įrankis (Court' AI Tool). TeDIA is essentially a virtual assistant for drafting court press releases: it uses the court's judgments and orders to automatically generate summaries for the website mediakf.vu.lt. This allows the Court's communications to be faster and more consistent. Crucially, TeDIA does not engage in deciding cases or recommending outcomes – its function is limited to disseminating post-decision information. This reflects the broader Baltic approach to judicial AI: the current uses of AI in Baltic courts are 'primarily for auxiliary, technical tasks' (Institute of Law at the Lithuanian Centre for Social Sciences, n.d.) rather than for core judicial decision-making. The development of TeDIA was a collaborative effort, involving the National Courts Administration and researchers (including a project with Vilnius University), to ensure the tool met quality and ethical standards (Lietuvos Teismai, 2024). The introduction of such an AI assistant, reportedly one of the first of its kind in EU judicial systems, exemplifies Lithuania's innovative yet cautious approach to legal technology. It shows how automation can assist judges and staff by handling routine writing tasks, while leaving judicial decisions entirely in human hands.

One of the biggest challenges has been ensuring that the technological infrastructure and security keep pace with the increasing number of new digital workloads. The National Courts Administration has pursued infrastructure improvements and capacity-building; by 2023, most courtrooms were equipped for high-quality videoconferencing, and digital audio recording of hearings became standard practice. These upgrades not only facilitate remote proceedings but also improve the record-keeping and transparency of in-person trials, by replacing handwritten minutes with verbatim audio records. Ensuring cybersecurity has been another priority: Lith-

uanian courts have implemented stronger data protection measures (secure case management servers, encrypted communications) in line with GDPR and national cyber guidelines. Notably, the judiciary has so far avoided any significant data breach, a result of proactive security planning that other countries can emulate.

The introduction of AI tools like TeDIA has also brought ethical and legal questions to the forefront. Lithuanian judicial leaders have emphasized a cautious approach: any use of AI must be thoroughly assessed for its added value and potential risks, with human rights and personal data strictly protected (Limantė et al., 2025). Before deploying TeDIA, the Supreme Court undertook extensive consultations and pilot testing to ensure the AI's summaries were accurate and unbiased. The project team established that the AI would not access any confidential information beyond final published decisions, mitigating privacy concerns. Additionally, judges retain complete oversight: they can edit or veto an AI-generated press release before it is published. By keeping a human in the loop, Lithuania has managed to benefit from automation while upholding judicial accountability. The early success of TeDIA, in terms of positive feedback and time saved for staff, suggests that, with proper safeguards, AI can be a helpful servant to justice, not a threat.

The Lithuanian Courts Administration is actively investing in enhancing judges' digital and AI literacy. In 2025, introductory training for newly appointed judges included an eight-hour programme on 'Artificial Intelligence and Personal Data Protection', covering the use of AI in judicial work (Judicial Council of Lithuania, 2024). Additional training programmes have addressed AI tools in court operations and the impact of digitalization on the legal system. Notably, the seminar 'AI and the Judiciary: Exploring Possibilities and Pitfalls' was held in Vilnius on 12–14 May 2025 as part of the Advanced Training in EU Law for Judges and Prosecutors, organized by the Academy of European Law (2025).

5. Digital reforms in the Polish judiciary

For many years, new technologies have been implemented in the judiciary, aiming in particular to streamline court proceedings, replace the traditional form of recording procedural activities by using modern technological solutions, increase the transparency of court proceedings, introduce properly documented case files enabling a correct assessment of the conducted proceedings, shorten the duration of recorded court hearings, and reduce the costs of proceedings (Karolczuk, 2018, p. 37). Over the past decade, there have been significant changes in the use of IT systems in court proceedings in Poland (Bartoszek, 2022, p. 15; Kotalczyk, 2021, p. 61) and – as mentioned above – in Lithuania.

One of the key elements of digital democracy in Poland is the Random Case Allocation System (SLPS), which has been in effect in Poland since 2018. In §2, point

16 of the Regulation of the Minister of Justice of 18 June 2019, the SLPS was defined as an IT system used for the random allocation of cases and court tasks, operating based on a random number generator.¹ This means that there is no possibility of interfering in the draw process, which takes place automatically; therefore the SLPS combines the principle of randomness with the principle of proportional allocation of cases (Gov.pl, 2021). Until the introduction of the SLPS, the president of a court or the chairman of a department decided who was to handle a given case, which raised many concerns. In the SLPS's current form, a citizen can be confident that which case goes to which person depends on the IT system.

The computerization of the Polish judiciary with the SLPS involves not only the random assignment of cases but also provides citizens with access to the reporting module. Any interested person can access the reports free of charge via the Information Portal and the Ministry of Justice's website, after selecting the appropriate court and department and entering the case reference number under which it was registered in the SLPS (Gov.pl, 2022). This solution deserves our approval. At the same time, there is a lack of instructions in this area, as access to the data is not possible without entering the case reference number. Citizens typically do not know the rules for assigning reference numbers, and the search engine itself does not provide any instructions and lacks intuitive functionality. In this respect, it would be necessary to add a legend and explain the individual solutions for people who do not have specialist knowledge in this area.

Another example of the computerization of the Polish judiciary is the system of Electronic Writ of Payment (Elektroniczne Postępowanie Upominawcze), Electronic Land and Mortgage Registers (Elektroniczne Księgi Wieczyste), and the electronic National Court Register (Elektroniczny Krajowy Rejestr Sądowy). Procedural documents are also made available to professional attorneys on the Information Portal. Additionally, it is possible to hold hearings remotely, as discussed in more detail in section 3 of this article. An e-protocol has also been introduced in Polish courtrooms, consisting of recording the course of a hearing; however, there are no solutions for its automatic transcription. Such a solution could shorten the duration of hearings, because there is a high chance that judges would refrain from recording testimony. In addition, each person familiarizing themselves with the course of a hearing would have the option to choose a recording or a written protocol (Kotalczyk, 2021, p. 61). The popularization of recording hearings and e-minutes would also significantly con-

1 A short description of the algorithm, which explains the basic principles of the system, is available in the justification of the Rules of Procedure of the Common Courts. To ensure transparency, the Ministry of Justice has decided to also provide a full description of the algorithm, which is part of the project documentation. It can be found on the website of the Ministry at <https://www.gov.pl/web/sprawiedliwosc/algorytm>.

tribute to reducing the number of requests for corrections submitted by parties to the proceedings.

One of the IT systems used in Polish courts is the PESEL-SAD system, mainly used to determine addresses. As rightly noted in the 'Recommendations for the use of artificial intelligence in the judiciary and prosecutor's office' (Working Group on Artificial Intelligence, Subgroup on Ethics and Law, 2023, p. 17), PESEL-SAD unfortunately only has information about the current and previous registrations of a given person.

It is reasonable to recommend integrating the PESEL-SAD system with public administration systems. It would be crucial to identify the addresses that an individual has provided when using the services of other public authorities, in particular tax authorities, the Social Insurance Institution, the National Health Fund, or municipal and regional offices, for example when applying for an identity card or passport. It would also be important to obtain information from other court proceedings regarding the address at which correspondence had previously been successfully served. Moreover, courts have access to the NOE-SAD system, which records all persons deprived of their liberty. The PESEL-SAD system should import data from it on whether the wanted person is currently imprisoned in a penitentiary unit, and if so, what address they have provided for release. Another useful functionality would be to automatically inform the court that the data of a person who is a party to the case have changed, in particular if they have changed their name or address, have been deprived of liberty, or died. (Working Group on Artificial Intelligence, Subgroup on Ethics and Law, 2023, p. 17)

In 2021, the Polish prosecutor's office implemented a system called PROK-SYS; one of its basic functions is the digitalization of files from preparatory proceedings in criminal cases. This allows the parties to view files online via the File Review Portal, which is more convenient than visiting the prosecutor's office and may increase the degree of protection of the parties' interests. The system was implemented as a supplement, not as a replacement for the paper-based file flow.

Artificial intelligence is a topic that is changing the reality around it, including the justice system in Poland. The Ministry of Justice has developed a Digital Court programme, consisting of multiple modules, with work spread over a timeline that allows for digitization to occur in stages. According to the Ministry of Justice's website, this programme aims to ensure an efficient judiciary by facilitating citizens' access to courts through the digitization of files and the automation of data verification. The idea is for the Polish judiciary to work primarily with digital documents, as storing paper court files incurs significant costs. Additionally, the goal is to provide public access to justice services via computer or telephone. At the same time, as part of the solutions being developed, mechanisms will be introduced to protect against digital exclusion, i.e. a situation in which a person cannot submit or receive documents in paper form. All changes related to the implementation of the so-called digital

court are to be first tested through a pilot, and after eliminating any potential problems, implemented nationwide. Currently, the Court of Appeal in Katowice has been tasked with developing a uniform solution for scanning and archiving files. In addition, on 3–5 April 2025, representatives of the Ministry of Justice met at the Prison Service Training Centre in Popowo to discuss the assumptions of the Digital Court programme. The training was attended by judges and officials from the district, regional, and appellate courts in Gdańsk and Warsaw.

The key phase of digitalizing Polish courts is expected to be completed within the next four years, i.e. by 2029. The modules that comprise the Digital Court programme will be discussed below. Pilot projects of the programme are already being introduced; an example is the pilot project Digital Assistant to the Judge, which is already being implemented and will be used in Swiss franc cases in courts of first and second instance. The Digital Assistant to the Judge is designed to facilitate citizens' access to court cases online, enable the electronic filing of documents, and simplify and automate office processes in court secretariats. This point provides for, among other things, the enabling of robotic writing of procedural documents to relieve court secretariats, which would be automatically entered into court systems; a knowledge base containing the cited case law of the Court of Justice of the European Union; or an algorithm enabling the creation of draft court decisions. The Ministry of Justice expects this project to be completed by mid-2026 (Portal Samorządowy, 2025).

According to Grzegorz Polak, the director of the Department of Computerization and Court Registers of the Ministry of Justice, a pilot programme for the complete digitalization of the work of the Court of Competition and Consumer Protection (SOKiK) is to be launched in 2025 (Rojek-Socha, 2025). This aims to introduce the possibility of conducting an entire case electronically. Ultimately, a central repository and office system for all ordinary courts will be created by developing a file browser that allows access to documents and enables marking, tagging, attaching notes, and filtering.

The Ministry of Justice is also working on the new Electronic Writ of payment proceedings (EPU) 3.0. The current Electronic Writ of payment proceedings allows for the entry of incorrect data. The new EPU will eliminate this possibility through integration with external registers and the use of dictionaries. In addition, activities in the area of the digitization of correspondence sent in paper form are to be improved, including the recognition of document categories and downloading data from scanned documents. Another issue being addressed is the introduction of a proxy calendar, reminder functions, and notifications (also via dedicated system interfaces) for entities handling numerous cases in the system. The Ministry of Justice website states that such solutions will be placed in the EPU by mid-2026. The Ministry of Justice also plans to transfer case files from the prosecutor's office to the court electronically, thereby expediting proceedings. The pilot phase of this project is scheduled to begin in 2025.

Transferring data to the electronic (and intangible) plane is a natural and desirable result of ongoing technological development. As a significant driver of socio-economic change, information and communication technologies are increasingly influencing the activities of public administration and justice authorities, becoming an impetus for introducing various changes in their structure and functioning (Jastrzębska, 2018, p. 36; Sieber, 2001, p. 14). This is reflected in the Act of 17 February 2005 on the computerization of the activities of entities performing public tasks (Sejm of Poland, 2005) amending this Act and certain other acts, which introduces the Committee for Digitization to systematize activities. The aim of this Act is to introduce solutions that support the digital transformation of the state, ensuring the coordination of digital development in public administration and the harmonization and complementarity of activities aimed at this end.

At the level of proceedings pending before Polish courts, it is worth paying attention to solutions that reflect the changing reality and the ongoing technological revolution. Examples of computerization in the justice system include remote hearings, regulated in Article 148¹ of the Code of Civil Procedure and Article 151 §2 of the Code of Civil Procedure. In criminal proceedings, participation in a hearing using technical devices that enable remote participation with simultaneous direct transmission of images and sound is regulated in Article 374(3) of the Code of Criminal Procedure.² According to this provision, the court (through the presiding judge), upon the prosecutor's request, consents to a prosecutor' participating in the hearing using technical devices enabling remote participation, provided that no technical reasons prevent this. Moreover, in accordance with Article 177 of the Code of Criminal Procedure, the examination of a witness may be carried out remotely. Another example of computerization in Poland is e-delivery. The Act of 18 November 2020 on Electronic Delivery introduces the obligation to use the National Electronic Delivery System; in Poland, this obligation will apply to courts from 1 October 2029 (Gov.pl, n.d.).

6. The role of international standards and cooperation in ensuring digital justice

2 The Act of 19 June 2020, on interest subsidies for bank loans granted to entrepreneurs affected by the effects of COVID-19 and on simplified proceedings for the approval of an arrangement in connection with the occurrence of COVID-19 (Journal of Laws of 2022, item 2141), added §§3–9 to Article 374. These provisions specify the conditions for conducting a remote hearing. It should also be noted that the possibility of conducting hearings remotely was extended to other procedural stages, including those referred to in Articles 96a and 250 §§3b–3h. It should be emphasized that although remote hearings were introduced by the aforementioned act related to the COVID-19 pandemic, the provisions in question do not include a requirement for the occurrence of difficulties or threats related to an epidemic situation. This means that a remote hearing, after meeting certain conditions, can be held in any case and has been introduced permanently, not ad hoc, into the Code of Criminal Procedure.

At the EU level (Balcerzak, 2024), Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonized Rules on Artificial Intelligence (the AI Act) plays a huge role. According to the Regulation, AI is a rapidly developing group of technologies that contributes to numerous benefits. The justice system (Fik & Staszczuk, 2022) was also cited as an example of the benefits of using AI, with the argument that its use enables better forecasting, optimization of operations and resource allocation, and personalization of digital solutions available to individuals and organizations (Dolniak et al., 2024).

The AI Act is the world's first comprehensive legal regulation for artificial intelligence systems and models; it aims to ensure security, transparency, and compliance with European values in the development and use of AI (Gov.pl, 2024). In the area of justice, it was considered that:

certain AI systems intended for the administration of justice and democratic processes should be classified as high-risk systems, taking into account their potentially significant impact on democracy, the rule of law, personal freedoms, as well as the right to an effective remedy and access to an impartial court. In particular, to eliminate the potential risk of bias, errors, and the black box effect, AI systems intended for use by or on behalf of judicial authorities to assist them in searching for and interpreting facts and law and in applying the law to a specific factual situation should be classified as high-risk systems. AI systems intended for use by Alternative Dispute Resolution (ADR) bodies for these purposes should also be considered high-risk if the results of the ADR procedure produce legal effects for the parties. The use of AI tools can support the decision-making powers of judges or the independence of the judiciary, but should not replace them; the final decision-making must remain a human-driven activity. However, the qualification of AI systems as high-risk AI systems should not extend to AI systems intended for purely auxiliary administrative activities that have no impact on the actual administration of justice in individual cases, such as anonymisation or pseudonymisation of court decisions, documents or data, communications between staff members, administrative tasks. (AI Act, paragraph 61)

Regarding the computerization of the justice system, the perspective of Article 6 ECHR is crucial, particularly the first paragraph, which outlines the general requirements for the fairness of court proceedings (Clifford Chance and Helsinki Foundation for Human Rights, 2021). Bearing the above in mind, it should be indicated that the following are required: an impartial and independent court; a court established by law; the right of access to a court and the right to fair court proceedings; the right to have a case heard without undue delay; and the right to a public hearing. We also must not forget Article 47 of the Charter of Fundamental Rights: 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 addition, everyone is entitled to a fair and public hearing within a rea-

sonable time by an independent and impartial tribunal previously established by law. There' is no doubt that the level of digitalization across all social functions has increased dramatically in recent years. One of the driving forces behind this was the COVID-19 pandemic, which saw the increasingly digital nature of public and private services. On 30 April 2024, Regulation (EU) 2024/1183 (eIDAS 2.0) was published in the Official Journal of the European Union, entering into force on 20 May 2024. This aims to ensure that digital identities are secure and protected against fraud and unauthorized access. One of the possible areas of application is identity confirmation on public portals to quickly and safely use the services available there and to access public registers in any European Union country. Poland is integrating new regulations with the mObywatel system, and their full implementation requires an amendment to national law, initially planned for the second quarter of 2026.

These issues can be presented using examples from Polish solutions. One of the key elements of the computerization of the Polish judiciary is the SLPS. The legal basis for the solutions introduced was the regulation of the Minister of Justice amending the regulation on Rules of Procedure of Common Courts of 28 December 2017, which implemented the Council Framework Decision 2001/470/EC of 28 May 2001 establishing a European Judicial Network in civil and commercial matters within the scope of its regulation. This provision was amended by Decision no. 568/2009/EU of the European Parliament and of the Council of 18 June 2009, which states that the reason for establishing a European Judicial Network in civil and commercial matters is the creation of an area of freedom, security, and justice, and which, in order to facilitate access to justice and judicial cooperation in civil matters, calls for further efforts through the Hague Programme, adopted by the European Council at its meeting on 4 and 5 November 2004 (Pytlewska, 2019, p. 268), among others. The Hague Programme aims to strengthen the collective capacity of the European Union and its Member States to guarantee fundamental rights, minimum procedural safeguards, and access to justice. Point 3 of the Programme, under the heading of strengthening justice, identifies the need to intensify further work on creating a Europe for citizens and the key role that the establishment of a European area of justice plays in this respect (European Union, 2005). The document that indicated the automatic allocation of cases as a guarantee of impartiality was Recommendation no. CM/Rec(2010)12 of the Committee of Ministers (Council of Europe, n.d.). According to point 24 of this recommendation, the allocation of cases within a given court should be based on objective, previously established criteria, to ensure the right to an independent and impartial court; it should not yield to the wishes of the parties or anyone else interested in the course of the proceedings. The use of an electronic case management system and communication technologies, which the authorities and judges should promote, was recommended as a way to facilitate such allocation (point 37).

To introduce modern solutions in the field of digitalization of the judiciary, in 2023 the Minister of Justice established an interdisciplinary team for the imple-

mentation of modern technologies; the legal basis for its operation is the Minister of Justice's order of 17 October 2024.³ The tasks of this team include, in particular, an analysis of needs in the field of the use of modern technologies in the justice system and the development of recommendations in this area, as well as defining and analysing the main barriers (legal, technological, organizational, or personnel) hindering the implementation of modern technologies in the justice system.

On 16 October 2024, a draft act on artificial intelligence systems was introduced in Poland, and is currently undergoing public consultation. On 28 April 2025, an agreement was signed between the Ministry of Justice and the Ministry of Digital Affairs under which the digital transformation of the justice system wilented. Additionally, the Ministry of Digital Affairs has prepared a draft of a new Artificial Intelligence Development policy for Poland, covering the period up to 2030. As we can read there, a wise and responsible implementation of AI in the Polish justice system can enhance the work of judges and prosecutors, reduce the duration of proceedings, and facilitate easier and faster access to these institutions by citizens. The draft AI policy was available for public consultation until 1 July 2025. In this context, it is also worth noting the 'State Digitalization Strategy to 2035', which states that the development of artificial intelligence is one of the key areas in Poland's digital transformation. The implementation of the latest technologies and the use of systems based on human-centric, sustainable, trustworthy, and safe artificial intelligence are crucial for the country's development. For this to become possible, it is necessary to determine the direction of state policy and ensure its proper coordination and implementation. In Poland, the key phase of digitalizing the courts is expected to be completed within the next four years, i.e. by 2029. Intensive work is currently underway in this area, so the coming years will bring verification of the extent to which the declared functionalities will be implemented and, above all, to what extent the changes will be beneficial to society.

Conclusions

The future of digital democracy – whether it ends in success or failure – depends on whether digital spaces for civic participation are designed appropriately. They must take into account the complexity of democratic processes so that technology supports and strengthens democratic institutions rather than undermining them (Squeo, 2023, p. 92). This means that technology itself does not determine the quality of democracy; it is how it is used and integrated into existing structures that influences the outcome. Digital tools (such as consultation platforms, online voting systems, and dedicated ICT systems) have the potential to support democracy by increasing access to information,

3 The legal basis for its operation is the order of the Minister of Justice of 16 October 2023, item 196., the order of the Minister of Justice of 17 October 2024, item252), and the order of the Minister of Justice of 19 February 2025, item 10).

promoting transparency, and developing citizen participation. However, if poorly designed, they can also foster disinformation and polarization, and undermine trust in institutions. For this reason, a systemic approach and conscious design of digital spaces, taking into account their social, political, and legal impacts, are crucial. It is not just about technology, but about understanding its interaction with human behaviour, political culture, and governance mechanisms.

The first hypothesis, that digital transformation of the judiciary can enhance the rule of law provided that transparency is maintained, has been confirmed. The computerization of court proceedings is a multi-level process. It not only contributes to streamlining court proceedings and work, but also increases the transparency of case handling. Moreover, and extremely important from the citizen's point of view, it can have a positive impact on the duration of court proceedings. Unfortunately, like any new technology, it also brings risks. The biggest challenge for computerizing court proceedings is the building of safeguards that protect parties from the leaking of their personal data and case information to unauthorized persons, while also integrating existing systems to ensure the entire system operates even faster and more transparently (Karolczuk, 2018, p. 37).

Therefore a diagnosis of the needs of the justice system is crucial. The last hypothesis has been confirmed; according to the 'Survey of expectations regarding automation of work in IT systems in courts' report (Ministerstwo Sprawiedliwości, n.d.), which was conducted by the IT and Court Records Division of the Court Service Development Department of the Ministry of Justice in the form of a questionnaire (with 1,848 responses) published on the website between 10 May and 30 June 2023, the needs of the judiciary are diverse. In particular, significant differences can be observed in the use of the IT systems in question depending on the organizational unit. As Reiling believes, 'delay, access, and corruption are three crucial issues any judicial organization or court faces. They are the three most common complaints of court users around the world' (2009). The future of the judiciary is increasingly shaped by digital transformation. Court records will be kept in electronic form, and cases will be held through video conferences. Other electronic instruments to accelerate the course of the proceedings will also start to be used (Wrzaszcz, 2023).

In Poland, the next phase of reform will determine not only whether the planned digital infrastructure is successfully implemented, but also whether it genuinely enhances access to justice and procedural efficiency. The most anticipated changes, considered the most important (in principle), involve the automation of activities that allow for the determination of the most essential information about the participants in proceedings as broadly understood, most often by obtaining information from external databases (PESEL, Civil Registry, Central Register and Information on Economic Activity (CeIDG), etc.), as well as court records and office systems (with knowledge about the participants' involvement in other proceedings). Another widely anticipated set of functionalities is those designed to facilitate the conversion

of paper documents into an editable digital form. Compared to Poland, Lithuania is further advanced in digitizing its justice system; it represents a more coherent approach to digital justice, oriented to the rule of law, whereas Poland's reforms remain fragmented and politically influenced. While Poland plans to complete the key stage of the digital transformation of courts by 2029, Lithuania has already implemented several solutions that are still in the planning or pilot phase in Poland. The Lithuanian e-court system (e.teismas) enables, among other things, complete online case management, the electronic filing of pleadings, and remote access to case files by the parties. The Lithuanians have successfully integrated court systems with public registers (such as the PESEL register or the business register), which allows for the automatic retrieval of data on participants in proceedings without requiring court staff to identify them each time. It is this aspect – the automation of obtaining data on proceeding participants – that is also recognized in Poland as one of the most important goals of computerization. Lithuania has also made significant progress in document processing, implementing systems that enable the automatic recognition and digitization of paper documents, which supports document circulation and archiving in office management systems. It is worth noting that Lithuania attaches great importance to cybersecurity and personal data protection, which aligns with concerns expressed in the Polish context, especially regarding the risk of unauthorized access to the data of parties to proceedings. Thanks to centralized IT infrastructure management and standardization of solutions, Lithuanians have created a more coherent and secure digital justice ecosystem.

The analysis confirms that the digitization of the justice system is an ambiguous phenomenon: on the one hand, it has real potential to improve the functioning of courts and increase their accessibility and transparency, and on the other hand, it may lead to the erosion of fundamental procedural guarantees if implemented without adequate institutional and legal safeguards. Verification of this hypothesis has shown that digital technologies, such as the automation of court proceedings, remote access tools, and decision-support systems, can strengthen the rule of law, provided that they are introduced transparently and proportionately, with the constitutional and conventional standards of a fair trial. In both Poland and Lithuania, it is crucial to ensure that the digitization process is not an end in itself, but a means to achieve the fundamental values of a democratic state governed by the rule of law. In this context, it is essential not only to design technology, but also to maintain mechanisms for citizen control, judicial oversight, and open dialogue, including with the legal community and the general public. The case of Lithuania, a country with a more advanced level of judicial digitization, demonstrates that properly designed reforms can increase efficiency without compromising the rights of parties, thereby serving as an inspiration for other Member States. In the long term, it will be crucial not only to monitor the impact of the technological solutions implemented but also to systematically assess their compliance with the rule of law, which requires cooper-

ation between legislatures, the judicial administration, practitioners, and international institutions. The literature indicates that at present, another critical challenge lies ahead: the judiciary should be supported with electronic instruments that would allow cases to be analysed by a system that proposes a procedural decision to end the case (Wrzaszcz, 2023).

Considering the above considerations, it seems worthwhile creating a list of recommendations, in particular:

- 1) Introducing a unified legal framework for digital tools in the judiciary.
- 2) Establishing rules for the use and transparency of AI in judicial processes.
- 3) Providing digital literacy and ethics training for judges and court staff.
- 4) Strengthening citizen oversight and participatory mechanisms in digital reforms.
- 5) Aligning national regulations with European standards (ECHR, EU AI Act, Charter of Fundamental Rights).

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