

# Digitalization of Legal Transformation on Judicial Review in the Constitutional Court



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## ABSTRACT

Efficient, affordable, and uncomplicated justice poses a complex dilemma within the Indonesian judicial system. However, applying technological advancements to assessing legal regulations can resolve this issue. This research aims to examine the necessity and implementation of digitalization in the Constitutional Court's judicial review process. This research utilized a normative legal approach, characterized by its prescriptive and applied nature, to examine the development and implementation of digitalization in the justice systems of the European Union, the United States, and the United Kingdom through comparative studies. The research results show that: *first*, technology in the Constitutional Court's judicial review process can most effectively promote openness and clarity in the decision-making procedure. However, there remain several areas in which the Constitutional Court must further refine itself to attain digital status, as inconsistencies persist in its practical rulings. Consequently, the Constitutional Court must increase the rate of digital transformation in its judicial review operations. *Second*, numerous other nations, including the European Union, the United Kingdom, and the United States, have observed the implementation of technological advancements, leading to enhanced transparency and accessibility in their justice systems. *Thirdly*, to overcome the challenges above, we must apply the fundamental principles of good judicial governance, procedural law at the Constitutional Court, the paperless principle, and the contactless service principle when developing digital transformation for future judicial review at the Court. This will enable us to achieve transparency and accessibility in the Constitutional Court's judicial system.



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## 1. Introduction

The establishment and application of law establish order in human existence, promoting prosperity and pleasure.<sup>1</sup> The process of transforming into a genuine

<sup>1</sup> Abdul Kadir Jaelani and others, 'Halal Tourism Sector and Tax Allowance Policy: A Case Study Observed from Normative Problems to Effective Implementation', *Ijtihad: Jurnal Wacana Hukum Islam Dan Kemanusiaan*, 23.2 (2023), 185–210 <https://doi.org/10.18326/ijtihad.v23i2.185-210>

rule-of-law state is protracted due to the requisite modifications in legal culture, social order, and behavior. In contrast, the success of a contemporary rule-of-law state is contingent upon a specific social and cultural inclination. Statutory regulations are frequently regarded as documented rules that constitute the law in contemporary legal systems.<sup>2</sup> In addition, legal products generally incorporate court decisions, including those of the Constitutional Court, which establish constitutional justice.

However, the ruling of the Constitutional Court serves as an optimistic precedent for addressing constitutional dilemmas that arise among the public and are brought before the Constitutional Court. In the context of judicial review, the ruling of the Constitutional Court not only offers legal solutions to the applicant's constitutional challenges but also constitutes an inviolable constitutional interpretation that binds state administrators and all citizens without exception (*erga omnes*).<sup>3</sup> To establish truth and justice by the Constitution, the decision of the Constitutional Court, which includes all relevant considerations and legal opinions, serves as a guide for all parties involved in implementing the Constitution as the nation's supreme law. Hence, it is ideal for the Constitutional Court's ruling to be founded upon and constructed upon substantial constitutional arguments that adhere to established norms and can be justified from a juridical, theoretical, philosophical, and moral standpoint.<sup>4</sup>

An essential obstacle and concern in facilitating the generation of judicial decisions pertains to the decision's consistency. Regarding the consistency of Constitutional Court decisions, preserving the substance of justice and ensuring the long-term viability of legal certainty in decisions rely heavily on consistency.<sup>5</sup> Unambiguous and resolute constitutional arguments are of the utmost importance in this instance, regardless of whether the Constitutional Court wishes to maintain consistency with prior rulings or alter its course, position, and constitutional arguments when resolving cases involving comparable constitutional concerns. To effectuate this, tangible concepts and actions are required to assist the Constitutional Court.<sup>6</sup> The concepts above and procedures pertain to providing

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<sup>2</sup> Shaojie Lai and others, 'Judicial Independence and Corporate Innovation: Evidence from the Establishment of Circuit Courts', *Journal of Corporate Finance*, 80 (2023), 102424 <https://doi.org/10.1016/j.jcorpfin.2023.102424>

<sup>3</sup> Jarosław Bełdowski, Łukasz Dąbroś, and Wiktor Wojciechowski, 'Judges and Court Performance: A Case Study of District Commercial Courts in Poland', *European Journal of Law and Economics*, 50.1 (2020), 171–201 <https://doi.org/10.1007/s10657-020-09656-4>

<sup>4</sup> Huang-Chih Sung, 'Can Online Courts Promote Access to Justice? A Case Study of the Internet Courts in China', *Computer Law & Security Review*, 39 (2020), 105461 <https://doi.org/10.1016/j.clsr.2020.105461>

<sup>5</sup> Abhishek Negi, Mohammed Irshad, and Resti Dian Luthviati, 'Deconstructing Attributes of Constitutional Legitimacy: A Case Study of Indian Constitution', *Journal of Human Rights, Culture and Legal System*, 4.1 (2024), 1–26 <https://doi.org/10.53955/jhcls.v4i1.114>

<sup>6</sup> Frank Louwen and others, 'The United States Supreme Court Ruling and Women's Reproductive Rights – A Position Statement Issued by The European Board and College of Obstetrics and

legal literacy, which is essential for case decision-making. To ensure legal literacy in the contemporary era of technological progress, known as Society 4.0, it is imperative to bolster judicial technology by implementing digital transformation in how the Constitutional Court handles judicial review cases. Because every citizen has the right to maximize the potential conferred upon them by God Almighty, including technological potential, digital technology is entirely constitutional.<sup>7</sup>

Concurrently, the Constitutional Court, established to transform into a contemporary judiciary, persists in implementing and refining innovations that enhance the efficiency of information, communication, and technology (ICT).<sup>8</sup> Implementing digital transformation in the legal review procedures of the Constitutional Court is an essential measure that was undertaken to enhance assistance during a critical stage of case management: when constitutional judges compose and review decisions after gathering adequate information during court hearings, which is available for public use. Implementing Digital Transformation in Legal Review Procedures at the Constitutional Court during this phase is crucial to provide substantive support for generating just and legally certain decisions.<sup>9</sup>

An in-depth analysis of the fundamental theory proposed by Jeremy Bentham and Lord Gordon Hewart to realize good judicial governance reveals that for the Constitutional Court to achieve good judicial governance, the judicial institution must implement the principle/theory of openness law.<sup>10</sup> To instill public confidence, the theories of certainty and legal justice ensure the consistency of decisions and decision-making processes, thereby attaining comprehensive justice rather than merely the final result of a decision (justice must be seen to be done); progressive legal theory and development legal theory ensure and accommodate modern technology within the judicial process; and development legal theory and assurance.<sup>11</sup> The Constitutional Court must assimilate and apply these principles

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Gynaecology (EBCOG)', *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 279 (2022), 130–31 <https://doi.org/10.1016/j.ejogrb.2022.10.012>

<sup>7</sup> Rozha K Ahmed and others, 'Challenges in the Digital Transformation of Courts: A Case Study from the Kurdistan Region of Iraq', in *2020 Seventh International Conference on EDemocracy & EGovernment (ICEDEG)* (IEEE, 2020), pp. 74–79 <https://doi.org/10.1109/ICEDEG48599.2020.9096801>

<sup>8</sup> Rozha K. Ahmed, Khder H. Muhammed, and others, 'Improving Court Efficiency Through ICT Integration: Identifying Essential Areas of Improvement', 2020, pp. 449–61 [https://doi.org/10.1007/978-981-15-0630-7\\_44](https://doi.org/10.1007/978-981-15-0630-7_44)

<sup>9</sup> Reza Octavia Kusumaningtyas and James Kalimanzila, 'The Impact of Tax Incentive on Increase Foreign Direct Investment', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 1.2 (2023), 51–63 <https://doi.org/10.53955/jsderi.v1i2.7>

<sup>10</sup> Cahya Intan Ayuningsekar, Abdul Kadir Jaelani, and Sapto Hermawan, 'Legitimacy Principle of Equality in Collection of Rural and Urban Land Tax', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 1.3 (2023), 151–74 <https://doi.org/10.53955/jsderi.v1i3.15>

<sup>11</sup> Nilam Firmandayu and Khalid Eltayeb Elfaki, 'The Electronic Government Policy-Based Green Constitution Towards Good Governance', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 1.2 (2023), 108–21 <https://doi.org/10.53955/jsderi.v1i2.11>

and theories, mainly when dealing with cases involving law amendments that carry final decisions and *Erga Omnes* (binding on all).<sup>12</sup>

As a form of transparency in case management, digitally transforming legal documents that must be accessible at each process stage is crucial to examine. This requirement is stipulated in Constitutional Court Law No. 7 of 2020, which amends Law No. 24 of 2003 regarding the Court. By the Constitution and Constitutional Court Regulation No. 2 of 2021 on Procedures in Legal Review Cases, this inquiry concerns how legal review cases are managed, the availability of digital legal documents as mandated by procedural law, and the extent to which these documents uphold the principle of transparency by being made accessible to parties, constitutional judges, and the general public engaged in interactions with the Constitutional Court.<sup>13</sup>

The Constitutional Court's failure to fully utilize and integrate the digital system when handling Law Enforcement cases, crucial for ensuring legal certainty for legal products and transparency in the judicial process, gives rise to fundamental issues within the Court's judicial system.<sup>14</sup> This fundamental issue is also a problem amenable to investigation, which is crucial for obtaining an immediate solution. Philosophical, theoretical, judicial, and empirical problems are at issue.

The philosophical difficulty pertains to how digital transformation and transparency throughout the case management process will account for the historical development of legal documents based on evolving legal standards. This must be accomplished in a manner that is transparent to all parties involved, including the public, the clerk of the Constitutional Court, and judges. The Constitution ultimately culminates in the Constitutional Court Decision regarding judicial review cases. Nevertheless, concerns persist regarding the efficacy and capacity of technology to aid judicial institutions and judges in rendering sound judgments, given that the formulation of laws and the selection of judges by constitutional judges continue to rely on intuition and individual capabilities without fully capitalizing on technological advancements.<sup>15</sup>

The theoretical difficulty is that when viewed from the perspective of "technology will surpass the law" or "law will fall behind the technology," the field of law is frequently placed in the space of competition even though the two disciplines converge harmoniously. As a scientific discipline, law must be endowed with technological mastery to guarantee that, with the aid of judicial technology, all

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<sup>12</sup> Tania Sourdin, Bin Li, and Donna Marie McNamara, 'Court Innovations and Access to Justice in Times of Crisis', *Health Policy and Technology*, 9.4 (2020), 447–53 <https://doi.org/10.1016/j.hlpt.2020.08.020>

<sup>13</sup> Stefan Koos, 'The Displacement of the Law by Technicity', *Jurnal Hukum Novelty*, 13.1 (2022), 1 <https://doi.org/10.26555/novelty.v13i1.a23822>

<sup>14</sup> Tania Groppi, 'De La Comunicación a La Promoción. Tribunales Constitucionales y Opinión Pública En La Revolución Digital', *Revista de Derecho Político*, 118, 2023, 13–48 <https://doi.org/10.5944/rdp.118.2023.39097>

<sup>15</sup> Kai von Lewinski and Stefanie Scherzinger, 'On the Lack of Legal Regulation in Conceptual Modeling', 2022, pp. 91–101 [https://doi.org/10.1007/978-3-031-22036-4\\_9](https://doi.org/10.1007/978-3-031-22036-4_9)

stages of the law are consistently regarded as fair and that the parties will ultimately accept the decision by adhering to the stages deemed to be extremely fair.<sup>16</sup> In contrast, the Constitutional Court, among Indonesia's preeminent judicial establishments, has encountered challenges in effectively integrating its final and erga omnes legal product output with contemporary technological advancements. Consequently, the theoretical framework of progressive law posits that human beings serve as determinants and orientations. The operation of technology and the law are instruments of convenience when the law cannot be correctly implemented.<sup>17</sup>

Concerning the use of integrated information, communication, and technology (ICT) systems in the handling of Legal Review cases, none of the judicial issues outlined in Constitutional Court Regulation Number 2 of 2021 concerning Procedures in Legal Review Cases and Law Number 7 of 2020 concerning the Third Amendment to Law Number 24 of 2003 concerning the Constitutional Court have been thoroughly and holistically regulated. This is one of the primary obstacles the Constitutional Court faces when implementing digital transformation, as there is no solid and unambiguous legal framework to address this divide.<sup>18</sup>

The current decision-making method in judicial institutions is predominantly manual and dependent on the skills of constitutional judges; it has not yet implemented digital transformation technology, which would provide comprehensive assistance to constitutional judges in formulating decisions for each case they handle (empirical practice).<sup>19</sup> Consequently, it is expected to encounter inconsistencies in the rulings of the Constitutional Convention. The petition judges' skills have the same legal foundation or philosophical substance. In addition to this, the overall accessibility of document transparency in judicial and trial proceedings is limited due to the failure to integrate the ethos of openness and transparency inherent in the Constitutional Court judicial process with current technological advancements.<sup>20</sup>

Several other nations, including the European Union, the United Kingdom, and the United States, have adopted the digitalization of the justice system. Courts in several U.S. states have developed applications that allow principals, attorneys,

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<sup>16</sup> Zhiyuan Guo, 'Regulating the Use of Electronic Evidence in Chinese Courts: Legislative Efforts, Academic Debates and Practical Applications', *Computer Law & Security Review*, 48 (2023), 105774 <https://doi.org/10.1016/j.clsr.2022.105774>

<sup>17</sup> Rizal Rizal, Ruslan Abdul Ghofur, and Pertiwi Utami, 'The Role of Muslim Generation Community at Zakat Collection on Realizing Sustainable Development Goals (SDGs) in the Era of Digital Society 5.0', *JURIS (Jurnal Ilmiah Syariah)*, 22.1 (2023), 105 <https://doi.org/10.31958/juris.v22i1.6562>

<sup>18</sup> Koos.

<sup>19</sup> Rozha K. Ahmed, Omer Ahmed, and others, 'The Role of Digital Transformation in Fostering Transparency: An e-Court System Case Study', 2022, pp. 219–30 [https://doi.org/10.1007/978-3-031-15342-6\\_17](https://doi.org/10.1007/978-3-031-15342-6_17)

<sup>20</sup> Huayun Zhai, Min Yang, and Kam C. Chan, 'Does Digital Transformation Enhance a Firm's Performance? Evidence from China', *Technology in Society*, 68 (2022), 101841 <https://doi.org/10.1016/j.techsoc.2021.101841>

and jurors to suggest trial schedules that do not disrupt their daily lives. This gives the parties involved autonomy in devising a trial timetable that is satisfactory to all individuals involved, provided that it does not disrupt their regular activities outside the courtroom. Additionally, courts in the United States have developed applications that incorporate modified forms, enabling the judge to consider crucial trial information when rendering a verdict in the case.<sup>21</sup> Subsequently, in the United Kingdom, the Ministry of Justice and senior judiciary institutions are collaborating to advance an ambitious justice reform initiative that aims to modernize and digitize the functioning of the nation's courts.<sup>22</sup> In the meantime, the European Union has enacted several legislative measures concerning the digitalization of the judiciary, including regulations governing computerized systems used for cross-border electronic services. The e-CODEX system, which facilitates the secure exchange of judicial information, is an example of data exchange in the field of judicial cooperation in civil and criminal matters. The Document Service and Evidence Retrieval Regulations require the use of decentralized IT systems with interoperable access points based on e-CODEX for relevant communications, while the electronic evidence regulations expedite and simplify the process for law enforcement.<sup>23</sup>

Previous research by Beatriz Fruet de Moraes et al concluded that there are strong indications that adjustments to digital governance and the use of technology by judicial institutions, which are adapted to regional conditions, can contribute significantly to simplifying access to justice services.<sup>24</sup> Meanwhile, Ritika Singh's research concluded that the realm of law is dynamic and intricate, thereby introducing continuous challenges and novel facets in its evaluation. In recent years, automation has dominated all sectors of society, with AI-based technology in particular becoming a dominant force in the legal industry by forecasting legal decisions. This digital barrage has contributed significantly to the legal profession.<sup>25</sup> Subsequently, previous research by Rozha K. Ahmed demonstrates that transparency in the judiciary is a critical component in fostering public confidence in the courts and ensuring that court personnel administer cases fairly. As a result, the digital transformation of courts is an obligatory measure to

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<sup>21</sup> Steven A. Koehler and Cyril H. Wecht, 'Death Investigation Systems: United States of America', in *Reference Module in Social Sciences* (Elsevier, 2024) <https://doi.org/10.1016/B978-0-443-21441-7.00057-1>

<sup>22</sup> Nigel J. Callaghan and Gabriel Callaghan, 'Court and Tribunal Report Writing in England and Wales', in *Reference Module in Social Sciences* (Elsevier, 2024) <https://doi.org/10.1016/B978-0-443-21441-7.00036-4>

<sup>23</sup> Xandra E. Kramer, 'Digitising Access to Justice: The Next Steps in the Digitalisation of Judicial Cooperation in Europe', *SSRN Electronic Journal*, 2022 <https://doi.org/10.2139/ssrn.4034962>

<sup>24</sup> Beatriz Fruet de Moraes, Fabrício Castagna Lunardi, and Pedro Miguel Alves Ribeiro Correia, 'Digital Access to Judicial Services in the Brazilian Amazon: Barriers and Potential', *Social Sciences*, 13.2 (2024), 113 <https://doi.org/10.3390/socsci13020113>

<sup>25</sup> Ritika Singh and others, 'Intervention of AI in Prediction of Judgement of Cases', in *2023 4th International Conference on Smart Electronics and Communication (ICOSEC)* (IEEE, 2023), pp. 1268-72 <https://doi.org/10.1109/ICOSEC58147.2023.10275850>

increase transparency by facilitating the public's access to, visibility over, and visibility into court data. The inception of the digital transformation of courts occurs when court procedures are digitized and e-court systems are implemented to enhance the processes' transparency, efficacy, and efficiency. The adoption of the electronic court system has the potential to enhance the public's access to justice, generate a more streamlined and effective judicial system, and increase the transparency of the judicial process.<sup>26</sup> Previous research by Zhen Li et al, show that judicial digital intellectualization (JDI) has a substantial inhibiting effect on corporate online violations, particularly in terms of violation inhibition. While pursuing JDI reform, the government should methodically disseminate the successful experience of constructing Internet courts nationwide.<sup>27</sup>

As a result, it is critical to examine the implementation of digital document transformation for legal documents, which ought to be accessible throughout the entirety of the court process as a demonstration of transparency in case management. This is further outlined in Constitutional Court Regulation Number 2 of 2021 concerning Procedures in Legal Review Cases and Constitutional Court Law Number 7 of 2020 concerning the Third Amendment to Law Number 24 of 2003 concerning the Constitutional Court. Following these rules will help with managing the implementation process in legal review cases. One thing that needs to be checked is that digital legal documents can be accessed legally and have gained the necessary value. The outcomes of this research will yield recommendations in the form of fundamental issues that continue to plague the practice of handling judicial review cases. Consequently, a new formula is required for handling judicial review cases at the Constitutional Court through the implementation of digital transformation, as the current procedure still adheres to the provisions of Law No. 7 of 2020 concerning the Third Amendment.

## 2. Research Method

This study is normative legal research, which is also referred to as doctrinal research employing a dominant approach (i.e., a statutory approach) since it is normative legal research according to legal logic.<sup>28</sup> Various methodologies are employed, including the legal, conceptual, case, analytical, and philosophical approaches.<sup>29</sup> Constitutional Court Regulation No. 2 of 2021 regarding Procedures in Legal Review Cases and decisions, as well as Constitutional Court Law No. 24 of

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<sup>26</sup> Rozha K. Ahmed, Ahmed, and others.

<sup>27</sup> Zhen Li, Panpan Zheng, and Huobao Xie, 'Judicial Digital Intellectualization and Corporate Online Misconduct', *Finance Research Letters*, 62 (2024), 105117 <https://doi.org/10.1016/j.frl.2024.105117>

<sup>28</sup> Abdul Kadir Jaelani, Reza Octavia Kusumaningtyas, and Asron Orsantinutsakul, 'The Model of Mining Environment Restoration Regulation Based on Sustainable Development Goals', *Legality: Jurnal Ilmiah Hukum*, 30.1 (2022), 131–46 <https://doi.org/10.22219/ljih.v30i1.20764>

<sup>29</sup> Abdul Kadir Jaelani and Muhammad Jihadul Hayat, 'The Proliferation of Regional Regulation Cancellation in Indonesia', *Journal of Human Rights, Culture and Legal System*, 2.2 (2022), 121–38 <https://doi.org/10.53955/jhcls.v2i2.38>

2003 as most recently amended by Law No. 7 of 2020 concerning the third amendment to Law No. 24 of 2003, constitute the primary legal materials. Laws and regulations undergoing review by the Constitutional Court as well as the Constitutional Court itself. Secondary legal materials consist of books, articles, and research findings, while tertiary legal materials comprise technological systems implemented at the Constitutional Court, including websites and applications that are pertinent to case management at the Constitutional Court. Empirical and qualitative data analysis methods were employed in this study; specifically, the acquired data was systematically compiled, compared to the Constitutional Court Regulations governing application requirements, and subsequently subjected to qualitative analysis to attain clarity regarding the discussed issues.<sup>30</sup> This research adopted a comparative approach by conducting a comparative study in the European Union, the United States, and United Kingdom, all of which have adopted digitalization in their judicial procedures.

### 3. Results and Discussion

#### *The Urgency of Digital Transformation in the Constitutional Court of Indonesia*

The Constitutional Court endeavors to establish a novel court culture and management system that prioritizes informed and high-quality decisions aided by Information and Communication Technology (ICT). This approach has been emulated by courts worldwide for a considerable period. Particularly about the Registrar General and Secretariat General of the Constitutional Court, digital transformation encompasses three bureaucratic domains within the context of contemporary institutions: the General Administration System (GAS), the Judicial Administration System (JAS), and digital cultural transformation.<sup>31</sup>

An aspect that distinguishes the Constitutional Court from other courts in Indonesia is the provision of trial minutes in the form of video, audio, or PDF files, which are accessible to the general public through the Constitutional Court website. The minutes of this trial serve as an example of judicial transparency towards the general public. According to the Constitutional Court regulation, the organization's headquarters are confined to Jakarta, precluding the establishment of affiliates in all provinces across Indonesia. This makes it difficult for the Indonesian people, particularly those seeking justice throughout the country, to access the Constitutional Court, particularly those who are unable to do so financially. As a result, to address this issue proactively, the Constitutional Court

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<sup>30</sup> Abdul Kadir Jaelani and Resti Dian Luthviati, 'The Crime Of Damage After the Constitutional Court's Decision Number 76/PUU-XV/2017', *Journal of Human Rights, Culture and Legal System*, 1.1 (2021) <https://doi.org/10.53955/jhcls.v1i1.5>

<sup>31</sup> Rozha Kamal Ahmed and others, 'Impact of E-Court Systems Implementation: A Case Study', *Transforming Government: People, Process and Policy*, 15.1 (2021), 108–28 <https://doi.org/10.1108/TG-01-2020-0008>

partnered with universities spanning 34 provinces on June 20, 2008, to develop a trial aid known as Video Conference.

Additionally, the Constitutional Court operates a Case Management System that furnishes case management information, including trial procedures, online request submission, and consistently updated information regarding case developments, trial schedules, trial minutes, and decisions.<sup>32</sup> Furthermore, the Constitutional Court administers digital archives containing case records to establish a contemporary judicial establishment. Since the era of the third Constitutional Court Secretary General, Prof. M. Guntur Hamzah, the Constitutional Court, in collaboration with the Google Play Store and Apple Store, has developed the Click Constitutional Court application to synchronize the Constitutional Court website and smartphones. The application's purpose is to facilitate public access to Constitutional Court trials and cases via smartphone.<sup>33</sup>

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Additionally, AI can assist in establishing a consistent legal foundation in various cases. By comparing a variety of legal arguments, rulings, and pertinent legal principles, AI ensures that judges are equipped with the necessary information to render decisions that are by applicable legal principles. Implementing technological advancements in the Constitutional Court's legal proceedings also facilitates enhanced transparency and public accessibility.<sup>35</sup> By disseminating information regarding cases and decisions through its website, the

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<sup>32</sup> Abdul Kadir Jaelani and others, 'Indonesia Carbon Tax Policy: A Key Role in Sustainable Development Goals', 2024, p. 020040 <https://doi.org/10.1063/5.0202042>

<sup>33</sup> Olubukola Olugasa, 'Utilising Technology in Making the Nigerian Administration of Criminal Justice Act Effective for Criminal Trials', *International Journal for Court Administration*, 11.2 (2020) <https://doi.org/10.36745/ijca.332>

<sup>34</sup> Wen Li and Qing Peng, 'Digital Courts and Corporate Investment in Sustainability: Evidence from China', *International Review of Financial Analysis*, 88 (2023), 102682 <https://doi.org/10.1016/j.irfa.2023.102682>

<sup>35</sup> Bart Custers and Anne-Sophie Heijne, 'The Right of Access in Automated Decision-Making: The Scope of Article 15(1)(h) GDPR in Theory and Practice', *Computer Law & Security Review*, 46 (2022), 105727 <https://doi.org/10.1016/j.clsr.2022.105727>

Constitutional Court empowers the general public to obtain pertinent data and gain insight into ongoing legal proceedings. Consequently, managing massive amounts of data and implementing digital transformation, with a particular emphasis on implementing artificial intelligence, are crucial measures in addressing the issue of inconsistent Constitutional Court decisions. Implementing appropriate technological advancements could enable the Constitutional Court to enhance the integrity and efficacy of the constitutional justice process, mitigate the likelihood of inconsistent decision-making, and uphold equitable and consistent legal principles.<sup>36</sup>

Massive technological advancements by the Constitutional Court have significantly altered the Indonesian judicial system. By Constitutional Court Number 2 of 2021 about Procedures in Test Cases, the procedural law has been completely updated to reflect the law on technology absorption. In terms of utilizing extant technology, the Constitutional Court is among the most progressive courts in Indonesia, even in comparison to other courts. The Court effectively uses conference technology, particularly long-distance, by establishing partnerships with numerous Constitutional universities to provide a venue for justice seekers to conduct conferences outside Jakarta. Aside from that, the Constitutional Court has effectively utilized technology to administer the judicial review case process so that justice petitioners no longer have to physically appear before the Constitutional Court in the capital city for the entire process, from registration to decision.

Nonetheless, there remain several aspects that the Constitutional Court must optimize to attain the status of Fully Digital. While the implementation of digital technology ought to enhance the caliber of decisions rendered by the Constitutional Court, in practice, inconsistencies continue to be identified in the decisions of the Constitutional Court. Undoubtedly, this does not exhibit a direct correlation with the ethos of digital transformation underway; in fact, the judiciary's very foundation may be compromised. Community participation in the judicial process, including using *amicus curiae*, will undoubtedly increase legal certainty about the Constitutional Court's decisions. Publication, accessibility, and transparency for the general public in judicial review case proceedings must be facilitated by the Constitutional Court to guarantee enormous community participation. Complete digital transformation is, therefore, an absolute necessity that the Constitutional Court implements to increase public involvement in every case process at the Court, resulting in equitable legal certainty. As a result of the

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<sup>36</sup> Wesley Gomes de Sousa and others, 'Artificial Intelligence and Speedy Trial in the Judiciary: Myth, Reality or Need? A Case Study in the Brazilian Supreme Court (STF)', *Government Information Quarterly*, 39.1 (2022), 101660 <https://doi.org/10.1016/j.giq.2021.101660>

erga omnes nature of its decisions, the Constitutional Court is obligated to render decisions devoid of any gaps or legal defects.<sup>37</sup>

The Constitutional Court may establish an internet-based case information system that furnishes the general public with convenient access to real-time data regarding pending judicial review cases, including their stage and status. Public understanding of the legal process and transparent followership of case developments are achieved in this manner. Additionally, the implementation of technology in case management procedures, including document transmission and inter-party communication, enhances transparency.<sup>38</sup> By recording and making available all written communications, the information presented by the parties in the case is guaranteed to be accurately documented and accessible to all parties with an interest.<sup>39</sup> In general, the implementation of digital transformation holds promise for enhancing the transparency with which the Constitutional Court manages judicial review cases. Granting the public more access to the judicial process not only upholds democratic principles and constitutional supremacy but also enhances public confidence in the constitutional justice system.<sup>40</sup>

Digital transformation contributes to enhanced Constitutional Court data administration. Additional features of the digital case management system include convenient accessibility to past judicial review decisions and case records. This enables judges to monitor decision-making consistency by examining the legal arguments employed and consulting on analogous cases from the past. The Constitutional Court's digital transformation facilitates improved data administration and equips judges with invaluable resources to ensure the delivery of impartial and consistent judgments. Consequently, concerns about contradictions in the rulings of the Constitutional Court, particularly about judicial review, shall cease to arise.<sup>41</sup>

Additionally, using technology in data analysis enhances the temporal efficiency of judges. Artificial intelligence (AI) tools enable adjudicators to conduct

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<sup>37</sup> Paolo Passaglia, 'Institutional Communication as a Means to Strengthen the Legitimacy of Constitutional Courts', in *Judicial Power in a Globalized World* (Cham: Springer International Publishing, 2019), pp. 359–75 [https://doi.org/10.1007/978-3-030-20744-1\\_24](https://doi.org/10.1007/978-3-030-20744-1_24)

<sup>38</sup> Bart Custers, 'A Fair Trial in Complex Technology Cases: Why Courts and Judges Need a Basic Understanding of Complex Technologies', *Computer Law & Security Review*, 52 (2024), 105935 <https://doi.org/10.1016/j.clsr.2024.105935>

<sup>39</sup> Guoyan Zeng and Linxing Lei, 'Digital Transformation and Corporate Total Factor Productivity: Empirical Evidence Based on Listed Enterprises', ed. by Ahmed Farouk, *Discrete Dynamics in Nature and Society*, 2021 (2021), 1–6 <https://doi.org/10.1155/2021/9155861>

<sup>40</sup> O.C. Ngige and others, 'A Dataset for Predicting Supreme Court Judgments in Nigeria', *Data in Brief*, 50 (2023), 109483 <https://doi.org/10.1016/j.dib.2023.109483>

<sup>41</sup> Jun Wang, 'Motivations for the Restructuring of China's Patent Court System', *International Review of Law and Economics*, 76 (2023), 106165 <https://doi.org/10.1016/j.irl.2023.106165>

more comprehensive studies of the arguments put forth by the involved parties.<sup>42</sup> In addition, technology can be employed to discern trends and patterns within cases. There is substantial untapped potential for technology to enhance the decision-making efficacy of justices significantly presiding over the Constitutional Court's judicial review cases. This enables justices to expedite information retrieval, perform more comprehensive data analysis, and fulfill their responsibility of upholding the supremacy of the Constitution and human rights with greater efficacy. By utilizing appropriate technological advancements, the Constitutional Court can guarantee that judgments in judicial review cases are founded upon precise information and meticulous legal evaluation, thereby establishing a system of constitutional justice that is both equitable and consistent. Impediments such as case complexity, extensive data processing, and decision consistency are surmounted with technology. By utilizing sophisticated technology,<sup>43</sup> in Indonesia, the Constitutional authority can maintain its preeminent position as the highest authority responsible for reviewing laws.

### ***Digital Transformation in the Constitutional Court of United States, United Kingdom, and European Union***

The U.S. judicial system is facing a confluence of delays, backlogs, and workforce shortages. This prompted many courts to modernize, but they risk stalling progress if they do not continue to invest in digital transformation. This is critical as they attempt to manage the exponential growth of digital evidence that law enforcement and attorneys increasingly present. According to 79% of state and municipal justices, delays have impacted hearing processes. Additionally, judges assert that a delay in a hearing cascades into other cases, leading to the postponement of approximately 20% (ten hearings per week) of their overall hearing schedule. According to 45% and 44% of respondents, court case burdens and backlogs have increased in the past twenty-four months. Expanding workforce obstacles intensify the already-existing pressure. Most respondents (68%) indicated that their court needed to improve its personnel within the previous twelve months. According to 58% of respondents, personnel expenditures have decreased or remained stagnant during this period.<sup>44</sup>

Providing information technology-based public services ensures punctuality, precision, and openness. In recent years, the public in the United States believes

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<sup>42</sup> Patrick Besson and Frantz Rowe, 'Strategizing Information Systems-Enabled Organizational Transformation: A Transdisciplinary Review and New Directions', *The Journal of Strategic Information Systems*, 21.2 (2012), 103–24 <https://doi.org/10.1016/j.jsis.2012.05.001>

<sup>43</sup> Guangqiang Liu and Shenghua Wang, 'Digital Transformation and Trade Credit Provision: Evidence from China', *Research in International Business and Finance*, 64 (2023), 101805 <https://doi.org/10.1016/j.ribaf.2022.101805>

<sup>44</sup> Ali Masyhar and others, 'Legal Challenges of Combating International Cyberterrorism: The NCB Interpol Indonesia and Global Cooperation', *Legality: Jurnal Ilmiah Hukum*, 31.2 (2023), 344–66 <https://doi.org/10.22219/ljih.v31i2.29668>

that the courts still need to deliver services that meet these expectations. Therefore, through the optimal utilization of information technology, the court can promptly modify the foundation and focus of its services. Even with the transition to virtual proceedings, there is an immediate need for modernization in other facets of the courts' ecosystem. Because courts need to catch up with law enforcement and attorneys to increase their reliance on digital evidence to support their cases. Courts need more resources to process and store the millions of digital pieces of evidence, such as bodycam footage, videos, emails, social media posts, and text messages, that they must sort through. Approximately 75% of judicial proceedings do not employ digital evidence management systems, notwithstanding the substantial operational advantages this technology could bestow upon trials and hearings. Two-thirds of those who do not have such a system believe it would be advantageous for their jurisdiction.<sup>45</sup>

The use of digital instruments in civil courts has significant practical implications. In contrast to criminal courts, civil courts do not ensure access to legal representation for individuals who cannot afford it through the provision of counsel. This leaves approximately 30 million Americans to handle potentially life-altering legal issues each year, including eviction, debt collection, and child support cases. Technology promises these litigants a more accessible system with improved outcomes, which includes locating the appropriate court to hear their case, submitting motions, arguing before a judge, and interpreting laws.<sup>46</sup>

Civil courts' adoption of technology occurred at an unprecedented rate and magnitude. Despite having almost no history of using remote civil court proceedings, every state and the District of Columbia initiated online hearings at record rates to resolve cases commencing in March 2020. For example, between March 2020 and February 2021, the Texas court system, which had not previously conducted civil hearings via video before the pandemic, executed a total of 1.1 million remote proceedings encompassing its criminal and civil divisions. Similarly, between April 1 and June 1, 2020, courts in Michigan conducted over 35,000 video hearings, comprising nearly 200,000 hours, in contrast to the absence of such proceedings during the corresponding period in 2019.

In addition, courts have transitioned to conducting other routine functions online. Thirty-seven states and the District of Columbia permitted non-attorneys to electronically file court documents in at least some civil cases before the pandemic. However, ten additional states have implemented comparable procedures since March 2020, expanding the accessibility of e-filing to a broader

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<sup>45</sup> Suparto Suparto and others, 'Establishment of Electoral Court in Indonesia: Problems and Future Challenges', *Journal of Indonesian Legal Studies*, 8.2 (2023) <https://doi.org/10.15294/jils.v8i2.72316>

<sup>46</sup> Shohib Muslim and others, 'The Meaning of "strength Executive" in the Constitutional Court Decision for the Execution of Fiduciary Securities', *Legality: Jurnal Ilmiah Hukum*, 31.1 (2023), 1-20 <https://doi.org/10.22219/ljih.v31i1.23244>

range of litigants, jurisdictions, and case types. With the advent of the pandemic, eleven states and the District of Columbia modified their policies regarding electronic notarization (e-notarization). As of autumn 2020, 42 states and the District of Columbia had adopted e-notarization or eliminated notarization requirements.<sup>47</sup>

Courts utilized technology not only to maintain accessibility but also to increase user participation and facilitate more efficient dispute resolution. Despite national and state data scarcity, court officials, such as administrators, attorneys, and judges, attest to rising civil court appearance rates. The adoption of technology at an accelerated rate benefited businesses and individuals with legal representation disproportionately more than those without; in some instances, it even made the legal system more difficult to navigate.<sup>48</sup> During pandemic lockdowns, while every state and the District of Columbia made efforts to ensure court operations continued, such alternatives were not consistently accessible in all areas for all categories of cases or individuals lacking legal representation. Alternatively, litigants, represented by attorneys, discovered that technological advancements facilitated the wholesale filing of cases. For instance, national debt collectors who file petitions in states across the United States increased their monthly filings by thousands using online tools after courts temporarily closed.<sup>49</sup>

In contrast, litigants lacking legal counsel encountered substantial barriers, particularly those with additional accessibility requirements, even when systems were technically accessible. Users without high-speed internet or devices encountered significant difficulties using the recently introduced tools to access courts. Moreover, despite the potential of technology to enhance the legal process for individuals with limited English proficiency and disabilities, courts, similar to other governmental services, have encountered challenges in guaranteeing accessibility for their technological infrastructure. Court officials have abundantly clarified that technological advancements must benefit all parties. The CCJ and COSCA authorized a resolution in July 2020, advising their members to adhere to the principles of due process, procedural fairness, transparency, and equal access while adopting new technologies.

The proliferation of courts tasked with constitutional adjudication resulted from the democratic transition in many parts of the world in the late 20th century;

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<sup>47</sup> I Dewa Gede Palguna and others, 'Indonesia's Constitutional Court Decisions on Outsourcing Scheme: Balancing Protection and Efficiency?', *Journal of Indonesian Legal Studies*, 8.2 (2023), 405–52 <https://doi.org/10.15294/jils.v8i2.66507>

<sup>48</sup> Dodi Jaya Wardana, Sukardi Sukardi, and Radian Salman, 'Public Participation in the Law-Making Process in Indonesia', *Jurnal Media Hukum*, 30.1 (2023), 66–77 <https://doi.org/10.18196/jmh.v30i1.14813>

<sup>49</sup> Sugeng Riyadi and others, 'The Urgency of Establishing Constitutional Court Procedural Law', *Volksgeist: Jurnal Ilmu Hukum Dan Konstitusi*, 2023, 209–23 <https://doi.org/10.24090/volksgeist.v6i2.9607>

however, the formal powers of these high courts differ considerably from country to country. Certain jurisdictions have specialized courts of constitutional review, commonly referred to as the constitutional court or tribunal; others combine the judicial review of legislation and cassation or the review of lower-court decisions (e.g., Denmark, the United States, Ireland); and still others (France [see Cour de Cassation], Belgium, Luxembourg, and the United Kingdom) exercise only the power of cassation. In some nations, numerous high tribunals have distinct functions and authorities. By establishing checks and balances and positioning all state institutions in the same position, the presence of the United States Supreme Court in its constitutional system ensures an internal balance in state administration practices. Indonesia, on the other hand, has a judicial system. The Constitution has the authority to evaluate legislation that violates it. In addition to the Supreme Court in the United States, the Indonesian Constitutional Court ensures that all Indonesian institutions operate in unison and parallel, thereby reducing the likelihood of unethical legal practices in drafting legislation.<sup>50</sup>

Additionally, there is considerable variation in the specific conditions that qualify a national high court to exercise the power of judicial review. Certain courts may invalidate legislation in a particular instance by exercising "concrete" judicial review (incident or a review that occurs incidentally to the case's decision). Additional judicial bodies have the authority to perform "abstract" judicial review, which involves examining a statute based on its constitutionality without relating to a specific ongoing case. Given the authority of abstract review, certain courts can use it either a priori (before the enactment of a statute) or a posteriori (after the law's implementation), depending on the situation. Many architects of the democratic constitutions that arose in central and eastern Europe during the 1990s favored a centralized, robust judicial system. A constitutional tribunal typically possessed judicial review authority, capable of examining abstract and concrete matters. The United States Supreme Court must avoid engaging in abstract judicial review by avoiding advisory opinions.<sup>51</sup>

For instance, the United States has 51 distinct judicial systems, one for each state and one for the federal government. The jurisdiction of the federal courts is, to a restricted degree, different from that of the state courts; nevertheless, substantial domains of convergence and replication exist. State courts are the ultimate arbiters of the meaning of state law unless they conflict with national laws, the national constitution, state constitutions, or statutes. The United States Supreme Court represents the apex of the judicial system, hearing appeals from state courts and

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<sup>50</sup> Muhammad Fauzan and Handar Subhandi Bakhtiar, 'Digitalization of Evidence in the Constitutional Court: Opportunities and Requisite', *Veteran Law Review*, 6.SpecialIssues (2023), 1–14 <https://doi.org/10.35586/velrev.v6iSpecialIssues.4791>

<sup>51</sup> Djamaludin Djamaludin and others, 'Assessing the Impact of Electronic Court Systems on the Efficiency of Judicial Processes in the Era of Digital Transformation', *Volksgeist: Jurnal Ilmu Hukum Dan Konstitusi*, 2023, 1–18 <https://doi.org/10.24090/volksgeist.v6i1.8082>

subordinate federal courts as long as the issues involve federal matters established by the United States Constitution, federal statutes, or treaties. When a state court case pertains solely to a matter of state law, such as the interpretation of a state statute, the state supreme court is the final arbiter; an appeal to the U.S. Supreme Court is not feasible.

Courts in several U.S. states have developed applications that allow principals, attorneys, and jurors to suggest trial schedules that do not disrupt their daily lives. This gives the parties involved autonomy in devising a trial timetable that is satisfactory to all individuals involved, provided that it does not disrupt their regular activities outside the courtroom. Technology lets parties pay court fees, sanctions, and other obligations online. This will significantly help the parties, as they will no longer be required to personally appear at the courthouse or bank to settle these fees. The court's provided application settles the entire amount, enabling prompt pursuit of the subsequent course of action. In the United States, judicial institutions have generally adopted an application that provides online navigation and is accessible to the involved parties. This navigation provides details regarding the court's configuration. Courts in the United States have developed applications that offer modified forms, enabling parties to electronically input crucial trial information that the judge will consider when rendering a verdict. This application expeditiously processes the trial data, which forms the basis for the judge's decision.

As part of developing a functional standard for a Case Management System (CMS), the Technology Committee in the United States is constructing a component model, or element/component model, that will serve as the foundation for subsequent CMS developments. The use of technology in the administration of judicial institutions is currently a prevalent practice in most countries around the world. Utilization of this technology yields substantial advantages in promoting judicial reform, enabling it to fulfill the public's demands for a streamlined, expeditious, and efficacious judicial process.<sup>52</sup>

The Court has an essential duty to ensure individual rights and uphold a "living Constitution" by consistently applying general provisions to novel and intricate circumstances, thanks to the authority of "judicial review." While the Constitution does not explicitly mention the judicial review function, its existence was foreseen before the document's adoption. Before 1789, state courts invalidated legislation that conflicted with the state constitution. Furthermore, many of the Founding Fathers anticipated that the Supreme Court would undertake this responsibility about the Constitution. The United States has implemented artificial intelligence as a judicial decision-making instrument. Furthermore, the country has witnessed

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<sup>52</sup> Zico Junius Fernando and others, 'Robot Lawyer in Indonesian Criminal Justice System: Problems and Challenges for Future Law Enforcement', *Lex Scientia Law Review*, 7.2 (2023), 489–528 <https://doi.org/10.15294/lesrev.v7i2.69423>

the advancement of predictive analytics technology, which enables the forecasting of litigation outcomes.<sup>53</sup>

Meanwhile, the United Kingdom consists of three distinct legal systems: Scotland, Northern Ireland, and United Kingdom and Wales, each having its own. This reflects its historical origins and the fact that, under the Acts of Union of 1707 and 1800, Scotland, Ireland, and later Northern Ireland retained their legal systems and traditions. This website pertains to the English and Welsh Judiciary. Additionally, the text briefly alludes to the Tribunals Service, whose jurisdiction includes Scotland, and the Supreme Court of the United Kingdom, which took control of the entire United Kingdom in October 2009 after replacing the House of Lords Judicial Committee.<sup>54</sup>

One consequence of the evolution of the present political and legal institutions in the United Kingdom since 1066. Another result is that our institutions failed to distinguish the functions and authority of the three branches of government—executive, legislative, and judicial. Members of Parliament (MPs) are, for example, peers of the legislature (the House of Commons and the House of Lords) and members of the government (or executive). On the contrary, the executive branch in the United States consists of the President and Cabinet members, utterly distinct from the legislative body comprising the Senate and the House of Representatives.<sup>55</sup>

The United States, which views the Constitution as the "supreme law," the United Kingdom does not clearly distinguish between constitutional and regular law. Consequently, the United Kingdom needs distinct protocols for amending the constitution itself. Parliament, like any other legislation, can repeal or amend a "constitutional statute" with a simple majority vote. In contrast, in countries like the United States, the constitution is considered "entrenched," necessitating additional conditions to effectuate amendments. The United Kingdom's constitution undergoes more frequent revisions than the constitutions of many other nations due to the relative ease with which the current government can amend it. People frequently refer to the United Kingdom Parliament as sovereign. The legislature's sovereignty means it has the authority to enact or repeal any legislation unrestricted by a constitutional provision.<sup>56</sup>

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<sup>53</sup> Empire Hechime Nyekwere and others, 'Constitutional and Judicial Interpretation of Environmental Laws in Nigeria, India and Canada', *Lex Scientia Law Review*, 7.2 (2023), 905–58 <https://doi.org/10.15294/lesrev.v7i2.69394>

<sup>54</sup> N. W. Barber, 'Courts', in *The United Kingdom Constitution* (Oxford University Press, 2021), pp. 136–57 <https://doi.org/10.1093/oso/9780198852315.003.0009>

<sup>55</sup> Lesley Dingle and Bradley Miller, 'A Summary of Recent Constitutional Reform in the United Kingdom', *International Journal of Legal Information*, 33.1 (2005), 71–102 <https://doi.org/10.1017/S0731126500004650>

<sup>56</sup> N. W. Barber, *The United Kingdom Constitution* (Oxford University Press, 2021) <https://doi.org/10.1093/oso/9780198852315.001.0001>

The House of Lords served as the preeminent judicial body, equivalent to the Supreme Court of Appeal. In civil cases, it served as the ultimate judicial authority for the entirety of the United Kingdom; in criminal cases, it was representative of the United Kingdom, Wales, and Northern Ireland. Its rulings obliged all lower tribunals. In addition to hearing cases, the justices had the opportunity to participate in deliberations and subsequent passage of government legislation as members of the House of Lords (although this was rarely the practice case). The Supreme Court's establishment has resulted in the complete separation of the highest-ranking justices from the parliamentary process. It is critical to note that the Supreme Court, the highest court of Scotland and Northern Ireland, is a legal entity distinct from the courts of England and Wales and a part of the United Kingdom. Therefore, in his capacity as the chief of the judiciary of England and Wales, the Lord Chief Justice of England and Wales does not have jurisdiction over it.<sup>57</sup>

As the United Kingdom advances, The Government purposefully developed C-Track to ensure seamless integration with court procedures, facilitate case categorization, and reengineer business processes to establish standardized procedures for specific case types. The UK judicial service can establish a unified digital asset featuring a standardized user interface, shared infrastructure, and subsystem integration by configuring the pre-existing system to tackle particular challenges instead of customizing it. This will generate data that is readily searchable and accessible to all relevant stakeholders throughout the case management process, including court personnel, legal professionals, judges, and the general public when applicable. Due to its status as a commercial off-the-shelf (COTS) solution, which can adapt to various jurisdictions, processes, and procedures, it only requires a little customization.

A COTS system facilitates future system expansion, enhancements, and the development of additional features through a universal core platform. Listing, electronic filing, document management, public access, and robust integration APIs are all features of C-Track. C-Track constructs the system with a standardized framework, uniform user interface, and modifiable subsystem integrations to accommodate data elements and workflow variations. Over a decade, C-Track has developed its compatibility with various jurisdictions and judiciaries. C-Track's open systems architecture allows it to comply with the government's ICT policies and implement its software on virtually any server environment. Its adaptable design can accommodate circuits of any size or shape. Access to the web-based solution is feasible on any device equipped with a web browser. Its service-based integration APIs enable seamless integration with a

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<sup>57</sup> Carol Harlow and Richard Rawlings, 'Judicial Review Process and Impact', in *Law and Administration* (Cambridge University Press, 2021), pp. 811-81  
<https://doi.org/10.1017/9781316576496.020>

variety of external infrastructures.<sup>58</sup> Greater accessibility and transparency. The dissemination of legal decisions and arguments through online platforms enhances the public's ability to comprehend the constitutional legal process.

Furthermore, national and EU policymakers have prioritized the digitalization of justice for a minimum of ten years. To enhance the procedural efficacy of the judicial system, digitizing judicial cooperation within the EU and judicial work processes and procedures is an unavoidable necessity. Certain nations continue to rely predominantly on paper-based judicial processes, rendering the implementation of remote communications and technological advancements, such as video conferencing, extremely rare or unattainable. The complex compatibility between technology and legal obligations and rights protection, the expenses associated with implementing and maintaining IT systems, and the protection of fundamental rights are a few of the many reasons.

The adoption of new methods of operation within the judiciary may be significant. The degree of digitalization within the justice system is somewhat antiquated in light of technological progress and the increasing prevalence of digital communication in various aspects of daily life. Integrating digital communications and other technologies into judicial reform has frequently presented obstacles. Nonetheless, for over a decade, the European Commission has prioritized the digitalization of the judiciary to enhance judicial cooperation among Member States. For example, the European Small Claims Procedure (ESCP) and the European Payments Procedure (EOP) Regulations only permit the use of remote communications to submit a request or response to a claim (see, for instance, Article 4 of the ESCP Regulations). It is contingent upon the member state to which the claim or application must be submitted.<sup>59</sup>

Article 8 of the ESCP stipulates that the European Small Claims Procedures Regulations, as amended in 2017 (Regulation 2015/2421), permit the standard use of technology and remote proceedings (teleconferencing and video conferencing). Member states remain reliant on whether or not they use this item. (Article 8 of the EOP Regulation) Only a handful of Member States can implement the European Payment Procedure Order electronically. The e-Codex initiative, which began in 2010, has played a pivotal role in facilitating electronic communications and supporting the electronic management of these procedures in the Small States of Europe. Besides being a place to store information about EU laws and instruments and those of Member States, the e-justice portal also makes it easier for people to

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<sup>58</sup> Meredith Rossner, David Tait, and Martha McCurdy, 'Justice Reimagined: Challenges and Opportunities with Implementing Virtual Courts', *Current Issues in Criminal Justice*, 33.1 (2021), 94–110 <https://doi.org/10.1080/10345329.2020.1859968>

<sup>59</sup> Anis Widyawati and others, 'Urgency of the Legal Structure Reformation for Law in Execution of Criminal Sanctions', *Lex Scientia Law Review*, 6.2 (2022), 327–58 <https://doi.org/10.15294/lesrev.v6i2.58131>

access justice online by adding new ways to use these processes in real time. In 2020, the Commission also presented a Communication on the Digitalization of Justice in the EU (final JOIN/2020/18), which accompanied the proposed e-Codex system. The Commission's work plan for 2021 (COM/2020/690 final) also includes this as a "digital justice cooperation" program.

The Commission presents a toolbox approach in this communication, suggesting that it should comprise a sequence of actions aimed at promoting the digitalization of justice at both the European Union and national levels. While prior legislative efforts have concentrated on particular instruments or domains, this communication adopts a comprehensive standpoint when discussing the modernization of the legislative framework governing cross-border procedures within the European Union. Following over a decade of promoting and facilitating digital communications across multiple platforms, recent modifications to the Service Regulations and Evidence have rendered digital methods of communication obligatory. The 2020 Commission proposal for an e-Codex system provides technical support for digitization. On the other hand, the December 2021 release of the most recent proposal on judicial cooperation digitalization offers a wide range of features, including electronic document and signature validation, conference video facilitation, and electronic communication. We anticipate establishing a more unified, enduring, and protected electronic justice system within the European Union through a sequence of legislative measures, technological resources, and suggested training approaches for experts in the justice domain. Comprehend the technological and legal complexities of the EU legislative process.

### *Rules and Principles for Accelerating Digital Transformation at the Constitutional Court of Indonesia*

Public participation, electronic filing of lawsuits and petitions, digital case management systems, utilization of artificial intelligence (AI) tools, data analysis, digital communication, and collaboration, publication of legal decisions and arguments, and the implementation of technology in the justice system are all aspects that may undergo substantial transformations.<sup>60</sup> Given the significance of technology implementation in the judicial process, the Constitutional Court has no justification for not incorporating technology into each case process, including the judicial review application process. The Constitutional Court has executed the integration of digital technology into the judicial review process effectively, even though Constitutional Court No. 2 of 2021's Article 18 paragraph (2) only mandates clerks to upload three of the fifteen (fifteen) judicial review stages specified in Article 8 paragraph (1). However, in the spirit of digital transformation, the Constitutional Court uploaded and updated all fifteen stages.

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<sup>60</sup> Meirong Guo, 'Internet Court's Challenges and Future in China', *Computer Law and Security Review*, 40 (2021), 105522 <https://doi.org/10.1016/j.clsr.2020.105522>

The Constitutional Court has established various digital tools to digitize court cases. These tools include a Constitutional Court website, a Court Recording System, video conferencing, a case management system, digital archives, and e-situation. The digital implementation utilized by the Constitutional Court to manage judicial review cases is among the most advanced in the world compared to other courts. Nonetheless, several facets of the management of judicial review applications still require the integration of digital technology. These include the requirement for a comprehensive application summary after its registration, which may be widely disseminated through the Constitutional Court website, and the necessity for up-to-date schedules and times for deliberative meetings, including their intensity. As per the Judges (RPH), the Constitutional Court has yet to incorporate dissenting and concurring opinions readily accessible to the public through its website, thereby requiring an in-depth search of the decision considerations that may be beyond the general public's comprehension. Furthermore, the Court still needs to implement big data technology and artificial intelligence (AI) to assist judges in comprehending and resolving judicial review cases at the C level.<sup>61</sup>

The Constitutional Court must facilitate and adhere to the four points above to maximize the implementation of digital technology in all case processes, particularly the management of judicial review cases. Implementing integrated technology throughout all phases of the judicial review process will enhance the efficiency, transparency, and accessibility of the judicial review application process at the Constitutional Court. By perpetually bettering oneself, society will continue to embrace the law. The scale of integrating software and digital information systems within the justice system is progressively expanding.<sup>62</sup>

As of 2021, 63% of the world's population, or 4.9 billion individuals, utilized the internet, according to data from Statista. Smartphone penetration was recorded at 5.9 billion, and social media usage was 4.55 billion. Indonesia ranks third among Asian nations regarding internet penetration, at 7.7%, trailing only China (35.7%) and India (27.3%). The internet penetration rate in Indonesia will reach 202.6 million in 2021, representing a 15.5% increase compared to the previous year. According to data from Statista, the number of new internet users increased by 30 million between 2020 and 2022 due to the Covid-19 pandemic. Despite the annual growth of the Indonesian Information and Communication Technology Development Index (IP-TIK), as reported by BPS, a significant issue persists in

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<sup>61</sup> André Rufino Do Vale, 'Teoría de La Argumentación Constitucional: Nuevos Aportes Sobre Las Deliberaciones Virtuales de Los Tribunales Constitucionales En La Era Digital', *Doxa. Cuadernos de Filosofía Del Derecho*, 46, 2023, 417–33 <https://doi.org/10.14198/DOXA2023.46.24>

<sup>62</sup> Xavier Tracol, 'The Joined Cases of Dwyer, SpaceNet and VD and SR before the European Court of Justice: The Judgments of the Grand Chamber about Data Retention Continue Falling on Deaf Ears in Member States', *Computer Law & Security Review*, 48 (2023), 105773 <https://doi.org/10.1016/j.clsr.2022.105773>

regional disparities. In Indonesia, disparities persist among provinces concerning the availability and comprehension of digital technology. Particularly in judicial review test cases, the Constitutional Court must consider unequal access to technology.

In judicial review cases, the Constitutional Court must balance its critical responsibility to uphold justice, human rights, and transparency with its obligation to resolve potential disparities in technology access that may emerge in the digital age.<sup>63</sup> This is because, in the modern era, artificial intelligence (AI) and big data have emerged as indispensable elements in numerous facets of existence. When utilized intelligently, big data and AI can assist society in resolving a variety of issues, interconnect the globe, and have a substantial positive effect on the future. Consequently, big data and AI are of the utmost importance in this age of ever-progressing information and technology.<sup>64</sup> The Constitutional Court's utilization of AI will be optimized when it can work with a dependable, extensive data management system. Regrettably, the Constitutional Court has not yet implemented AI and big data to assist with judicial performance and administrative services. These two instruments are the foundational linchpins for the Constitutional Court's comprehensive digital transformation toward a contemporary and impartial judiciary.<sup>65</sup>

The European Union, the United States, United Kingdom, Russia, New Zealand, and Mexico are among the countries that have begun integrating software and digital-based information systems, particularly artificial intelligence (AI), into their justice systems by recent technological developments.<sup>66</sup> Artificial intelligence has been implemented as a judicial decision-making instrument in the United States. Furthermore, the country has witnessed the advancement of predictive analytics technology, which enables the forecasting of litigation

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<sup>63</sup> Straton Papagiannas and Nino Junius, 'Fairness and Justice through Automation in China's Smart Courts', *Computer Law & Security Review*, 51 (2023), 105897 <https://doi.org/10.1016/j.clsr.2023.105897>

<sup>64</sup> Stanisław Tosza, 'Internet Service Providers as Law Enforcers and Adjudicators. A Public Role of Private Actors', *Computer Law & Security Review*, 43 (2021), 105614 <https://doi.org/10.1016/j.clsr.2021.105614>

<sup>65</sup> Anindita Kusumowijoyo, Anjani Marta, and Kimberly Natali Boasrifa, 'The Artificial Intelligence as a One-Stop Point for Dealing with Online Human Trafficking Scams in Indonesia', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 1.3 (2023), 189–211 <https://doi.org/10.53955/jsderi.v1i3.18>

<sup>66</sup> Silvia Steininger, 'Creating Loyalty: Communication Practices in the European and Inter-American Human Rights Regimes', *Global Constitutionalism*, 11.2 (2022), 161–96 <https://doi.org/10.1017/S2045381721000241>

outcomes.<sup>67</sup> Additionally, the United States has implemented predictive coding to ascertain the likelihood of future criminal activity by a recidivist.<sup>68</sup>

In the United Kingdom, an artificial intelligence system called DoNotPay conversation has been integrated into the legal aid sector. Presently, this system offers legal aid services encompassing over one thousand areas of law. In addition, the Chamber of Lords (the British House of Lords or the upper chamber of the Parliament of the United Kingdom) has established an artificial intelligence committee to examine artificial intelligence-related issues and regulations. After that, both Sberbank and Glavstrah Control introduced robots to assist in resolving insurance disputes and initiate legal proceedings against individuals, respectively, in Russia. Alistair Knott, a project from AI and Law at the University of Otago, is another instance of artificial intelligence development in New Zealand. This initiative gives rise to apprehensions concerning the potential misuse of computer-based prediction models in administering lawsuits and claims for the state accident compensation scheme (Accident Compensation Corporation (ACC)).<sup>69</sup>

Mexico has subsequently implemented artificial intelligence technology to facilitate standard administrative decision-making. This method is employed due to its increased efficiency, enabling it to deliver comprehensive service punctually. In the interim, the European Commission has designated artificial intelligence and robotics as foundational technologies and acknowledged the critical nature of substantial investment in these domains.<sup>70</sup>

Given the exponential growth of technology and the evolution of judicial modernity in other nations, the present moment presents an opportune moment to facilitate the integration of information technology into the legal system to enhance its responsiveness to the demands of society.<sup>71</sup> Implementing specialized software and information systems empowers the Constitutional Court to enhance the efficiency of judicial review case data management and expand public

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<sup>67</sup> Ahmad Siboy and Ahmad Bastomi, 'Does the Cancellation Victory Foreign Nationals in Local Democracy: Evidence from United Kingdom', *Journal of Human Rights, Culture and Legal System*, 4.1 (2024), 27–53 <https://doi.org/10.53955/jhcls.v4i1.166>

<sup>68</sup> Alessandra Calvi, 'Data Protection Impact Assessment under the EU General Data Protection Regulation: A Feminist Reflection', *Computer Law & Security Review*, 53 (2024), 105950 <https://doi.org/10.1016/j.clsr.2024.105950>

<sup>69</sup> Edgardo Buscaglia and Thomas Ulen, 'A Quantitative Assessment of the Efficiency of the Judicial Sector in Latin America', *International Review of Law and Economics*, 17.2 (1997), 275–91 [https://doi.org/10.1016/S0144-8188\(97\)00007-0](https://doi.org/10.1016/S0144-8188(97)00007-0)

<sup>70</sup> Massimo Marelli, 'The Law and Practice of International Organizations' Interactions with Personal Data Protection Domestic Regulation: At the Crossroads between the International and Domestic Legal Orders', *Computer Law & Security Review*, 50 (2023), 105849 <https://doi.org/10.1016/j.clsr.2023.105849>

<sup>71</sup> Marcin Rojszczak, 'The Uncertain Future of Data Retention Laws in the EU: Is a Legislative Reset Possible?', *Computer Law & Security Review*, 41 (2021), 105572 <https://doi.org/10.1016/j.clsr.2021.105572>

accessibility. The support provided by information systems and specialized software to the Constitutional Court during the Legal Review Case procedure is crucial from multiple perspectives. The information system furnishes a structure that facilitates the effective administration of judicial review case data.<sup>72</sup>

Data protection and confidentiality are critical in digital endeavors, including the judicial review case proceeding before the Constitutional Court. The Constitutional Court adheres to the principles of transparency and accessibility in its approach to case law. Nevertheless, this does not imply that the Constitutional Court has no limitations in preserving privacy by the requirements of these two principles, particularly about personally identifiable information (NIK) or identity numbers that are susceptible to misunderstanding. It is indisputable that errors in transmitting information that possesses the potential to be classified as confidential or material will result in losses of both tangible and intangible nature.<sup>73</sup> Ensuring privacy is not limited to in-person interactions or personal lives; instead, it is advantageous in all endeavors, particularly in light of the swift advancements in ICT (Information Communication Technology) brought about by the advent of the internet, which ultimately necessitates individuals to modify their behavior patterns. Daily conduct about privacy management. Safeguarding privacy and personal data witnessing an upward trajectory in numerous nations during the digital age. This is due to the alarming need for adequate safeguards for privacy and personal data compared to the swift advancements in internet and communications technology.<sup>74</sup>

The Constitutional Court is responsible for maintaining accurate records of judicial review cases, including the personal information of applicants, witnesses, and other relevant parties. Several data security and privacy risks are introduced when the Constitutional Court transitions to an entirely digital environment, including the possibility of data breaches, susceptibility to cyber attacks, improper use of data, the possibility of multiple identities being associated with the institution, and the possibility of human error. To address these vulnerabilities, the Constitutional Court must implement robust data security measures, including encryption, double authentication, and active cybersecurity monitoring.<sup>75</sup> A

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<sup>72</sup> Caio Castelliano, Peter Grajzl, and Eduardo Watanabe, 'Does Electronic Case-Processing Enhance Court Efficacy? New Quantitative Evidence', *Government Information Quarterly*, 40.4 (2023), 101861 <https://doi.org/10.1016/j.giq.2023.101861>

<sup>73</sup> Thomas D C Bennett, 'Triangulating Intrusion in Privacy Law', *Oxford Journal of Legal Studies*, 39.4 (2019), 751–78 <https://doi.org/10.1093/ojls/gqz024>

<sup>74</sup> Kai von Lewinski, Michael Beurskens, and Stefanie Scherzinger, 'Data Modelling as a Means of Power: At the Legal and Computer Science Crossroads', *Computer Law & Security Review*, 52 (2024), 105865 <https://doi.org/10.1016/j.clsr.2023.105865>

<sup>75</sup> Regina Linden Ruaro and Daniel Piñeiro Rodriguez, 'Personal Data Protection and State Surveillance: The Risks of Digital Discrimination and Federal Supreme Court's Vision', *A&C - Revista de Direito Administrativo & Constitucional*, 22.90 (2022), 63 <https://doi.org/10.21056/aec.v22i90.1658>

stringent policy concerning the privacy and preservation of data for individuals involved in judicial review cases is also required. Moreover, the Constitutional Court must maintain vigilance against cyber security threats that may attempt to compromise data or impede the judicial review procedure. Efforts to monitor and respond to cyber threats must be incorporated into the data security strategy. To maintain the integrity of the constitutional justice process, the Constitutional Court must prioritize data protection and privacy while ensuring security and transparency are not compromised.

Objectives and strategies should guide the implementation of the digital transformation of judicial review procedural regulation at the Constitutional Court. "Achieving Fully Digital in the Process of Handling judicial review in the Constitutional Court" is the objective of the digital transformation of judicial review in the Constitutional Court. The following strategy will be implemented to achieve this objective: first, developing and creating regulatory instruments about judicial review procedural law (amendment to Constitutional Court No. 2 of 2021 concerning data Proceedings in Legal Review Cases). Second, Human Resources (HR) training and development within the Constitutional Court; and third, technology development and utilization integration between the Constitutional Court and related parties.<sup>76</sup> The target scheme and strategy for implementing judicial review's digital transformation at the Constitutional Court is as follows:

Figure 1. Grand Design Target and Implementation Strategy for Digital Transformation Review of Laws at the Constitutional Court



<sup>76</sup> Sholahuddin Al-Fatih and Asrul Ibrahim Nur, 'Does the Constitutional Court on Local Election Responsive Decisions?', *Journal of Human Rights, Culture and Legal System*, 3.3 (2023), 569-96 <https://doi.org/10.53955/jhcls.v3i3.74>

The regulatory instruments about legal review procedures must be developed and established to aid in implementing digital transformation at the Constitutional Court. This is because the Court continues encountering several issues while processing judicial review cases. The problems above encompass several aspects, such as the lack of updated time and schedule for the Justice Deliberative Meeting (RPH), the Constitutional Court's inability to provide a clear legal foundation for uploading information or documents about the stages of the judicial review process, and the protracted delay in the presentation of the dissenting issue by the Constitutional Court. A summary (resume) of the petition is required, along with differing and concurring opinions (for various reasons) that are readily accessible to the public without needing an in-depth search.

Additionally, the Constitutional Court has yet to implement big data technology and artificial intelligence (AI) to aid judges in comprehending and resolving judicial review cases at the Constitutional Court.<sup>77</sup> Secondly, to establish a workforce of high caliber, it is imperative to conduct human resources (HR) training and development. The efficacy of the Constitutional Court's endeavors to digitally transform each case phase is contingent upon the caliber of its resources, particularly its personnel. The objective achievement of the Constitutional Court will be facilitated through the development of human resources. Thirdly, integration between the Constitutional Court and relevant parties is required. The Constitutional Court, which utilizes a variety of digital technology facilities to support its operations to establish a modern and reliable court, must, of course, collaborate with other institutions, particularly the government, which oversees government administration in general. Additionally, the Constitutional Court must be receptive to partnerships with technology institutions, private corporations, and other government agencies deemed to have the capacity to contribute to the success of digital transformation significantly because the Constitutional Court's collaboration with relevant stakeholders is a critical element in endeavors to expedite the digital transformation of the Judicial Review Case procedure.

The rate at which science and technology advance, particularly information technology, significantly impacts the dynamics of social interaction. In theory, society functions as an open system, actively participating in all social and environmental transformations and facilitating exchanges with smaller subsystems within a more extensive system. This implies that the subsystem of information technology influences the subsystem of society in a given country. In Indonesia, this information technology has similarly contributed to an increase in

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<sup>77</sup> Paweł Marcin Nowotko, 'AI in Judicial Application of Law and the Right to a Court', *Procedia Computer Science*, 192 (2021), 2220–28 <https://doi.org/10.1016/j.procs.2021.08.235>

the frequency of dynamic social interactions.<sup>78</sup> Nevertheless, this has a beneficial effect on our judicial governance and social conduct, which necessitates professionalism (field-specific conduct), transparency (complete lack of concealment), accountability (actions and conduct in every position must be quantifiable), and effectiveness and efficiency (prompt and responsive conduct, particularly when utilizing computerized systems).<sup>79</sup>

Whether they like it or not, law enforcement must inevitably adapt to advancements in information technology in the modern justice system. Because, as a paradigm shift phenomenon, justice systems in every country in the world, particularly modern legal countries (which are already developed or developing), are either directly or indirectly responsive to more effective and efficient social interactions (people seeking justice) with law enforcement than in the past. Integrating information technology into the contemporary justice system is a defining feature of exceptional justice. As stated at the Asia Pacific State Judicial Organization Conference in Singapore in 2011, applying information technology is one method to achieve excellence in the judiciary.<sup>80</sup>

The Constitutional Court is crucial in implementing an information technology-based modern justice system. This technology was developed to simplify and enhance the quality of law enforcement, which has been regarded as exceedingly complex and challenging to resolve. Technology's application and utilization, including artificial intelligence, must be incorporated into the justice system in light of its rapid advancement. This is precisely to address whether the law should be progressive, as this should invariably correspond with human civilization.<sup>81</sup> Implementing digital technology in the judicial review process at the Constitutional Court will undoubtedly introduce justice seekers to novel patterns and formats in public services. However, these modifications mustn't compromise the Constitutional Court's capacity to adjudicate and manage cases.

In the judicial review procedural law of the Constitutional Court, the extensive application of technology does not inherently supersede the tenets of procedural law. The Constitutional Court's implementation of digital transformation must be

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<sup>78</sup> Keping Wu, Yumei Fu, and Dongmin Kong, 'Does the Digital Transformation of Enterprises Affect Stock Price Crash Risk?', *Finance Research Letters*, 48 (2022), 102888 <https://doi.org/10.1016/j.frl.2022.102888>

<sup>79</sup> Yi Xue and Xinzhi Zhang, 'Digital Transformation and Corporate Capital Structure: Evidence from China', *Pacific-Basin Finance Journal*, 84 (2024), 102299 <https://doi.org/10.1016/j.pacfin.2024.102299>

<sup>80</sup> G. Falavigna and R. Ippoliti, 'Reform Policy to Increase the Judicial Efficiency in Italy: The Opportunity Offered by EU Post-Covid Funds', *Journal of Policy Modeling*, 43.5 (2021), 923–43 <https://doi.org/10.1016/j.jpolmod.2021.06.001>

<sup>81</sup> Nur Putri Hidayah and others, 'Artificial Intelligence and Quality of Composition Verdicts in Indonesia: Lessons from New Zealand', *Journal of Human Rights, Culture and Legal System*, 4.1 (2024), 101–20 <https://doi.org/10.53955/jhcls.v4i1.175>

guided by the following procedural law principles: non-rejection of cases (*Ius Curia Novit*); simplicity, speed, and cost-effectiveness; legal certainty; public access to the trial; judicial discretion in case decision-making; and the right to a fair and balanced hearing (*audi et al. team part*). In addition, the Constitutional Court must strategically implement the paperless principle to promote digital transformation. The Constitutional Court's management of judicial review cases has essentially sought to reduce reliance on paper by implementing Constitutional Court No. 2 of 2021 regarding Proceedings in Law Promulgation Cases. Nevertheless, several formal requirements still necessitate the use of paper when submitting a judicial review to the Constitutional Court. These include the application letter, the applicant's identity verification, and evidence of the documents submitted.

Efficiency and productivity gains, information accessibility and resource conservation, data security and resilience, simplified updates, and revisions, enhanced legibility and analysis, environmental consciousness, and virtual court challenges are all benefits that can result from adopting paperless practices. Aside from that, the digital transformation process is entirely automated by the system and does not require much human interaction or contactless service. The results may increase time and cost efficacy, enhancing service outcomes. Implementing the contactless service principle yields several advantages, including enhanced impartiality of the Constitutional Court, streamlined administration and data management, increased transparency and accountability, flexibility and remote collaboration, and the application of technology for identity verification. Despite this, it is critical to maintain compliance with applicable legal and ethical standards while implementing contactless services, conducting staff training, and guaranteeing data security.<sup>82</sup>

The principles of good governance and good justice (good judicial governance and accountability, respectively) have been established as foundational values in the justice administration system at the Constitutional Court. For instance, the principles of independence, impartiality, transparency, and accountability serve as the cornerstones of each fair trial process implemented at the Constitutional Court.<sup>83</sup> To achieve effective digital transformation and evolve into a contemporary judiciary, the Constitutional Court implements, at minimum, the fundamental principles of good organizational governance accessibility and

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<sup>82</sup> Saurabh Agrawal, Abhishek Sahu, and Girish Kumar, 'A Conceptual Framework for the Implementation of Industry 4.0 in Legal Informatics', *Sustainable Computing: Informatics and Systems*, 33 (2022), 100650 <https://doi.org/10.1016/j.suscom.2021.100650>

<sup>83</sup> Blayne Haggart and Clara Iglesias Keller, 'Democratic Legitimacy in Global Platform Governance', *Telecommunications Policy*, 45.6 (2021), 102152 <https://doi.org/10.1016/j.telpol.2021.102152>

transparency, accountability, and responsibility that are essential for good organizational governance.<sup>84</sup>

Immediate digital transformation of judicial review procedural law at the Constitutional Court is required in light of the preceding discourse. Nevertheless, modifications to the procedural law of judicial review do not ensure an expeditious progression of digital transformation within at the Constitutional Court. Several articles in Constitutional Court Number 21 of 2021, which pertain to Procedures in Test Cases, continue to be inconsistent with the digital transformation of the Constitutional Court into a modern judiciary. Due to the deficiencies identified in the judicial review Procedural Law, specifically Constitutional Court Number 2 of 2021, modifications to Constitutional Court Number 2 of 2021 are required. The most recent Constitutional Court, which serves as a successor for Constitutional Court Number 2 of 2021, incorporates legal standards that pertain to the overarching principles of digital transformation.

The Constitutional Court ruled in full. Digital transformation in how the Constitutional Court handles judicial review cases will be effectively executed by observing and applying each of the principles above. Beginning with modifications to the judicial review procedural regulation, system support, and the implementation of the legal tenets governing digital transformation, everything must be meticulously coordinated in preparation for the next phase, which entails the establishment of a completely digital system for managing judicial review cases at the Constitutional Court.

#### 4. Conclusion

Based on the analysis and discussion, a conclusion is drawn as follows: *first*, using technology in the Constitutional Court's judicial review process can significantly enhance transparency and accessibility throughout the decision-making procedure. However, the Constitutional Court still has several areas where it can improve to attain digital status, as its decisions continue to be inconsistent in practice. Consequently, the Constitutional Court must increase the rate of digital transformation in its judicial review operations. The Constitutional Court can establish an impartial and consistent system of constitutional justice by utilizing appropriate technological advancements to ensure that rulings in judicial review cases are based on accurate information and meticulous legal assessment. *Second*, similar to how the judiciary in the United States employs technology to enhance user engagement and streamline dispute resolution, it also maintains accessibility. United Kingdom is an additional nation integrating technological advancements into its justice system. C-Track was intentionally created by the British government with the following objectives: to facilitate case categorization,

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<sup>84</sup> Panagiotis Tsintzos and Vasilios Plakandaras, 'The Judiciary System as a Productivity Factor; the European Experience', *Economics Letters*, 192 (2020), 109257  
<https://doi.org/10.1016/j.econlet.2020.109257>

streamline integration with court procedures, and restructure business processes to establish standardized protocols for specific case categories. In the interim, the European Union has implemented several legislative initiatives concerning the digital transformation of the judiciary. These include regulations that pertain to computerized systems utilized for electronic services across national borders. In the realm of judicial cooperation concerning civil and criminal matters, data exchange is exemplified by the e-CODEX system, which facilitates the secure interchange of government documents. *Thirdly*, moving forward, when implementing digital transformation in judicial review at the Constitutional Court, we must adhere to and enforce the fundamental principles of procedural law, paperless principle, the contactless service principle, and the good judicial governance principle, to achieve transparency and accessibility within the Constitutional Court's judicial system.

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