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Dematerialization of the writ of execution: Contradictions between electronic justice and the rule of law in the republic of Armenia

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Abstract

This article analyzes the doctrinal contradictions between the dematerialization of enforcement proceedings and the Rule of Law, using Armenia as a case study for transitional democracies. It applies predictive socio-legal modeling to assess the risks of eliminating the writ of execution and reducing the judicial function to mere electronic certification ahead of the 2026 reforms. By comparing Armenian legislative drafts with Estonian and Brazilian models, the results indicate that full digitization creates an institutional deficit, where technical validity overrides substantive justice. The study reveals that without safeguards, automated notification encodes formalism, converting technical failures into systemic rights denials. Although the reform is pending, this analysis identifies architectural flaws requiring immediate correction. The article concludes that preventing the de-subjectification of the judiciary requires legislating a digital presumption of good faith and retaining the human-in-the-loop principle.

Key words

Algorithmic justice; enforcement proceedings; digital presumption of good faith; institutional deficit; public policy

Resumen

Este artículo analiza las contradicciones doctrinales entre la desmaterialización de los procedimientos de ejecución y el Estado de derecho, utilizando Armenia como caso de estudio para las democracias en transición. Aplica el modelo sociojurídico predictivo para evaluar los riesgos de eliminar el auto de ejecución y reducir la función judicial a una mera certificación electrónica antes de las reformas de 2026. Al comparar

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los proyectos de ley de Armenia con los modelos de Estonia y Brasil, los resultados indican que la digitalización total crea un déficit institucional, en el que la validez técnica prevalece sobre la justicia sustantiva. El estudio revela que, sin salvaguardias, la notificación automatizada codifica el formalismo, convirtiendo los fallos técnicos en denegaciones sistémicas de derechos. Aunque la reforma está pendiente, este análisis identifica fallos arquitectónicos que requieren una corrección inmediata. El artículo concluye que para evitar la desubjetivación del poder judicial es necesario legislar una presunción digital de buena fe y mantener el principio de intervención humana.

Palabras clave

Justicia algorítmica; procedimientos de ejecución; presunción digital de buena fe; déficit institucional; políticas públicas

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1. Introduction

1.1. Description of the research topic and institutional motivations

In modern rule-of-law states, the quality of justice and institutional legitimacy are measured not only by the substantive validity of judicial acts but also by the inevitability and operability of their enforcement. In the third decade of the 21st century, judicial systems have found themselves at the epicenter of an unprecedented technological transformation, often characterized in literature as a transition to a new paradigm of algorithmic justice. In this new reality, information technologies have ceased to be merely auxiliary tools facilitating administration and have assumed a system-forming role that reshapes the very essence of justice (Susskind 2020).

The large-scale judicial and legal reforms currently underway in the Republic of Armenia (RA), which are strategically anchored by the Strategy adopted by the RA Government, aim to radically re-engineer the mechanisms for initiating enforcement proceedings (Government of the Republic of Armenia 2022).

To understand the practical implications of this shift, it is necessary to critically contrast the current and future procedures. Currently, to initiate enforcement, a creditor must obtain a physical, paper-based writ of execution from the court and submit it to the Compulsory Enforcement Service. This process entails a final judicial review, where the court acts as an active subject validating the specific mandate for state coercion. However, the legislative amendments adopted by the RA National Assembly envisage the complete dismantling of this institute. Starting in 2026, an electronic enforcement act will be automatically generated from the judicial database (DataLex) and transmitted to the enforcement service, bypassing direct judicial oversight (Compulsory Enforcement Service of the Republic of Armenia 2020).

The primary catalyst for this radical alteration is severe court congestion. According to empirical data from the European Commission for the Efficiency of Justice (CEPEJ) and the World Bank, the volume of civil and administrative cases entering the Armenian judicial system surged by more than 40% between 2017 and 2023, causing systemic delays and violations of case examination deadlines (Melis and Harutyunyan 2023). Thus, the resource crisis demands a conceptual shift from traditional paper bureaucracy to data-driven digital ecosystems, using automation to alleviate the administrative burden on courts, albeit creating new legal vulnerabilities.

1.2. Theoretical basis and transformation of the judicial function

This research is based on the theoretical proposition that an institutional transformation is taking place, rather than simple automation. This distinction is of pivotal importance for the correct assessment of the new model:

- **Automation** implies the technological acceleration of existing analog processes without changing their internal logic or legal procedure (Nunes 2020).
- **Transformation** is a substantive and structural change of the legal process, which implies a transition from a "document-centric" model to a "data-centric" model (Lunardi *et al.* 2025).

In the new model, the function of the court is transformed, ceasing to be a body that generates a writ of execution. It becomes a legal validation of information available in the database. This shift leads to the danger of the judge turning into a technical certifier, which doctrinally calls into question the very essence of the judiciary (Reiling 2020). Based on Richard Susskind's theory, this change requires an analysis of whether automation leads to a diminution of the judiciary's role without harming human rights protection standards. The dematerialization of the physical mandate (the writ) leads to a loss of judicial discretion and increases the probability of systemic errors.

1.3. Comprehensive literature analysis

An analysis of existing literature on the topic reveals a knowledge gap resulting from the doctrinal disconnection of three main poles of existing research.

International reports justify the necessity of reform purely through quantitative indicators, focusing on the cost-efficiency of courts, case clearance rates, and the reduction of timeframes (Melis and Harutyunyan 2023). However, their flaw lies in their policy bias. They ignore the institutional fragility of the RA judicial system and the fact that the unpreparedness of digital infrastructures has already led to the postponement of the reform's implementation until 2026 (Avanesov 2025). The example of Armenia serves as a universal model in this research to demonstrate how digital formalism threatens the justice systems of developing democracies.

Armenian academic works powerfully substantiate the necessity of judicial review. Hovhannisyan and Markosyan demonstrate through their studies the importance of protecting public policy and substantive control over administrative acts as a red line of judicial doctrine (Hovhannisyan 2023, Markosyan and Hovhannisyan 2023). The scientific gap lies in the fact that these doctrinal analyses are not linked to the logic of digital processes. They do not answer the question: how can the value-based nature of public policy, which requires human judgment, be squared into the circular logic of an algorithm?

Although Estonia and Brazil (Conselho Nacional de Justiça 2022) are showcased as best practices, their models rely on high institutional trust. The Estonian hybrid control model, which applies the institute of the assistant judge, maintains the human-in-the-loop principle (Kalamees and Sein 2020, European Bank for Reconstruction and Development [EBRD] 2023a). In the case of the RA, where there are issues regarding trust in the courts and human rights protection (Karapetyan 2024, U.S. Department of State 2025b), the simple borrowing of such a model would intensify the doctrinal contradiction.

1.4. The scientific gap of the research

A scientific gap exists at the doctrinal and practical levels regarding fair trial guarantees:

- **The causal chain of contradiction between case law and the algorithm.** The cause of the scientific gap is that the planning of the reform ignored the case law of the ECHR and the RA Constitutional Court. While the ECHR (*Vachik Karapetyan v. Armenia*) clearly defines that the burden of proof regarding the fact of notification is borne by the state, and it cannot be limited to mere

technical dispatch, and the RA CC (SDO-1290) requires a real possibility of access to the court (Council of Europe 2024), the new algorithm is designed to operate on a formal timeline principle. The consequence will be the institutionalization of the formality of notification, which will contradict human rights doctrine.

- **Critical development of judicial formalism.** The scientific gap is further exacerbated by the fact that RA judicial practice (e.g., the logic of Administrative Court case No. VD/0028/05/19) is already inclined to apply extreme procedural formalism, rejecting technical reasons as valid excuses. The causal link is as follows: if human discretion is already limited, replacing it with a discretion-free algorithm will mean the encoding of formalism. This will significantly intensify the infringement of rights, as periodic technical malfunctions of the system (Melis and Harutyunyan 2023) will turn into a legal basis for the denial of rights.

1.5. Research question and hypotheses

Thus, this research highlights a dual crisis: the automation of enforcement proceedings in the RA is driven not only by economic necessity but also represents an attempt at the de-subjectification of the judiciary. This work introduces the concept of the digital presumption of good faith into scientific circulation. It is substantiated that without this legal regime and the preservation of the judge as an institutional filter, the RA reform will lead to a doctrinal contradiction, undermining legal certainty.

Based on the gaps existing at the doctrinal and practical levels, this research proposes the following **research question**:

How does the change in the judge's role to the limited function of a digital certifier in the process of initiating enforcement proceedings affect fair trial and the rule of law, considering the technological vulnerability of the RA judicial system and the requirements of case law?

To answer this question and verify the doctrinal contradiction, the following **hypotheses** are proposed:

Hypothesis 1. The full automation of enforcement proceedings in the RA, without the institutional preservation of the human-in-the-loop principle, will highly likely lead to a doctrinal crisis. This crisis will be manifested by the algorithm's inability to perform qualitative judgments, such as assessing the compliance of a foreign judgment with public policy (Hovhannisyan 2023).

Hypothesis 2. Automation will undermine the fundamental principles of a fair trial, as under conditions of double normalization, technical errors and formal notification (without confirming actual receipt) will become one of the main causes of the erosion of rights. In this case, systemic instability, which is documented in international reports, will be encoded as a legal norm.

Hypothesis 3. System stability and the rule of law can only be ensured through the legislative enshrining of a Digital Presumption of Good Faith and the introduction of an assistant judge institute similar to the Estonian model, which would carry out preliminary filtration.

2. Methodology

2.1. Study structure and theoretical justification

This research was conducted within the theoretical framework of predictive socio-legal modeling, which combines the toolkit of doctrinal, normative-legal, and comparative analysis. This multi-level approach became necessary considering the complexity of the research, which requires not only an examination of the legislative text but also an assessment of the contradiction between technological unpreparedness and judicial practice.

- **Doctrinal and normative analysis:** In the first stage, an in-depth analysis of the legal text and a doctrinal analysis were applied, aimed at verifying Hypothesis 1. This method allows for the identification of gaps between the legislative text (*lex scripta*) and fundamental legal principles (*ratio legis*).
- **Comparative functional analysis:** The principle of functional equivalence was applied, aimed at substantiating Hypothesis 3. The method allows for assessing how different legal systems (RA, Estonia, Brazil) solve the same functional problem (automation of enforcement proceedings) and how their experience can be applied to provide digital safeguards.

2.2. Research sample (corpus of analysis)

Since this is not an empirical study, the sample was defined as an **analytical aggregate** consisting of the following three interconnected objects:

- **Normative-legal framework (normative corpus):** This section includes the RA Civil Procedure Code, the new Law "On Enforcement Proceedings", and sub-legislative acts related to the digitization of the judiciary. Special attention was paid to the decisions of the Supreme Judicial Council (SJC) regarding the introduction of electronic justice (Academy of Justice of the Republic of Armenia n.d.).
- **Doctrinal and scientific section (doctrinal corpus):** The section covers the works of RA legal scholars (Hovhannisyan, Markosyan) related to the enforcement of arbitral awards and judicial control over administrative acts (Hovhannisyan 2023, Markosyan and Hovhannisyan 2023). This provides the dogmatic basis for testing Hypothesis 1.
- **Comparative sample:**
    - **Estonia:** Selected as a semi-automation (zero-touch automation) model where the institute of the assistant judge operates (EBRD 2023cb).
    - **Brazil (SEEU system):** Selected as a successful example of massive data interoperability between judicial and enforcement bodies (Conselho Nacional de Justiça 2022).
    - **Poland (E-court):** Selected as a model for the electronic examination of mass claims and an opt-out mechanism.

2.3. Data collection and analysis methods

Data collection and analysis employed a multi-tool approach to assess both the normative framework (*lex scripta*) and its practical application:

- **Normative-legal analysis:** An in-depth review of the legislative text was conducted to identify gaps between statutory requirements and actual technological capabilities.
- **Doctrinal case law comparison:** Fundamental decisions of the RA Court of Cassation and the Constitutional Court, alongside the logic of the ECHR case *Vachik Karapetyan v. Armenia*, were examined regarding the right to effective notification. These cases served as the doctrinal benchmark for verifying Hypothesis 2.
- **Critical policy and data review:** To assess the factual workload and infrastructural readiness of the RA judicial system, secondary quantitative and policy data from CEPEJ, the World Bank (Melis and Harutyunyan 2023), and national reports (Compulsory Enforcement Service of the Republic of Armenia 2024) were analyzed. This streamlined descriptive data serves as the baseline to evaluate the objective necessity of the reform against its operational risks, strictly avoiding redundant statistical modeling.

2.4. Experimental procedure: Modeling institutional contradiction

The research process was logically divided into three main stages aimed at the complementary verification of the hypotheses:

Stage I. Functional deconstruction: A decomposition of the court's traditional functions was carried out to define which actions of issuing a writ of execution can be subjected to automation and which require judicial discretion. This aimed to clarify at which points the change of the judge's role to a digital certifier occurs.

Stage II. Doctrinal testing

- **Public policy test (the cognitive gap):** A test developed based on Hovhannisyan's theory was applied to assess the algorithm's capacity to evaluate public policy (*ordre public*)—a concept deeply embedded in Armenian civil procedure and the New York Convention (Hovhannisyan 2023). The analysis reveals a fundamental dissonance: public policy is an axiological, context-dependent variable requiring moral and social judgment, whereas the UEES and DataLex systems operate on binary (0/1) logic.
- **The specific novelty of the Armenian case:** While the inability of AI to grasp public policy is established in global literature (Pasquale 2015), the specific danger in the RA context is the **institutional removal of the human operator**. The reform does not simply employ an imperfect algorithm to *assist* a judge; it effectively **immunizes** enforcement acts from public policy review at the initiation stage. By reducing the judge to a digital certifier who validates only technical metadata (dates, IDs), the legislation structurally eliminates the *opportunity* to detect an unconscionable contract or a violation of fundamental rights. Consequently, **Hypothesis 1** is confirmed not merely because the technology is immature, but because the legal design creates an **institutional**

validity gap. An enforcement act can be effectively generated because it satisfies the algorithm's technical syntax (it is valid code), while simultaneously violating the state's public policy (it is invalid law).

- **Procedural notification test (the formalism trap):** Based on judicial practice, a scenario was modeled where a technical failure (DataLex malfunction) leads to a missed deadline. Approaches of the RA Administrative Court (formalistic) and ECHR requirements were compared to verify how technical imperfection turns into a denial of justice, confirming **Hypothesis 2**. The analysis showed that without a human mechanism to exercise equity, automation encodes and amplifies existing procedural formalism, making the system intolerant to technical errors.

Stage III. Solution synthesis (the corrective framework): Based on the functional gaps identified in the comparative samples, a remedial framework of institutional digital safeguards was synthesized. This stage focused on translating the abstract necessity of human oversight into concrete legislative proposals.

- **The digital presumption of good faith:** First, the research formulated the concept of the "Digital Presumption of Good Faith" as a necessary legal regime. This principle dictates that in the event of system outages, data discrepancies, or algorithmic ambiguity, the burden of proof must shift automatically to the state. This ensures that technical failures are interpreted in favor of the citizen, preventing glitches from becoming legal liabilities.
- **Re-institutionalizing the human element:** Second, the Estonian model was adapted to substantiate the reintroduction of the **assistant judge** (*Human-in-the-loop*) into the RA draft law. This role is proposed not as an administrative support function, but as a jurisdictional filter capable of halting algorithmic enforcement when public policy violations are detected, thereby resolving the doctrinal conflict identified in Stage II.
- **Data for rights, not just enforcement:** Finally, drawing from Brazilian best practices, the synthesis proposes utilizing data interoperability not just for enforcement efficiency, but for continuous **rights monitoring,** allowing the system to flag potential rights violations *ex-ante*, rather than waiting for post-factum appeals.

2.5. Ethical considerations

This research, being a doctrinal and policy analysis, did not involve human participants and, therefore, did not require Ethics Committee approval. Nevertheless, the ethical foundations of the research are built on the following principles:

- **Integrity of sources:** Correct citation and complete presentation of all sources (including secondary reports) were ensured.
- **Judicial integrity:** The research was developed based on the judicial integrity principles developed by the UNODC (2025), which view technological solutions as a tool for increasing trust in the judicial system. The work was ethically oriented towards the preservation of human rights (Fair Trial) as a paramount principle.

3. Results and analysis

This section presents the results of the empirical and doctrinal stages of the research, obtained within the framework of predictive socio-legal modeling defined in the Methodology section. The analysis is structured in a logical sequence, starting from the statistical justification of the necessity of the reform, moving to the modeling of doctrinal contradictions, and ending with a quantitative assessment of the institutional deficit. Rather than treating the hypotheses as isolated legal assumptions, the analysis reveals their deep systemic interdependence. The findings empirically substantiate that the institutional removal of the human judge (Hypothesis 1) does not merely fail at the abstract doctrinal level of public policy assessment; it acts as the direct mechanical trigger for the procedural violations and formalistic rigidities identified in Hypothesis 2. Consequently, the necessity of the digital presumption of good faith and the assistant judge (Hypothesis 3) is confirmed not merely as a theoretical ideal, but as the sole functional legal architecture capable of neutralizing the cascading effects of automated rights deprivation.

Data summarization and statistical analysis served as a baseline to assess the objective necessity of automating enforcement proceedings. Using dynamic series (2017-2023) from the World Bank and the European Commission for the Efficiency of Justice (CEPEJ), an analysis of judicial system workload trends was conducted.

The analysis shows that the annual volume of civil and administrative cases received in the Armenian judicial system has demonstrated a steady growth trend. Relative to the 2017 baseline indicator, a more than 40% increase in case flow was recorded in 2023. At the same time, despite increased funding for courts and the introduction of simplified budgeting, which amounted to approximately 20.2 euros per capita (Economic Development and Research Center [EDRC] 2024), the system's **throughput capacity** remained inadequate.

Applying **Trend Analysis** to the dynamic series, an evident positive correlation between the growth of cases and deadline violations was revealed, evidencing the system's overload. Although the courts' clearance rate was positive (111%) in 2023, the accumulated **backlog** continues to remain at a critical level.

This statistical inference substantiates the causal basis for the automation of enforcement proceedings. The Government and the legislature view the abolition of the writ of execution and digital automation not merely as a technological innovation, but as an urgent measure of judicial economy. However, this necessity creates a new, more dangerous **variable**: under conditions where RA state registry data are not fully digitized, the principle of the **cascading effect of data defects** (often characterized as GIGO) will operate: the algorithm will validate inaccurate data, imparting the legal force of a judicial act to it. Consequently, the doctrinal requirement for system reliability becomes absolute, which prepares the ground for a doctrinal contradiction.

Based on the identified statistical risk, a doctrinal statistical testing of the new model was conducted to verify **Hypothesis 1**. According to the methodology, the Public Policy Test was applied to assess the difference between the cognitive abilities of the algorithm and the human judge.

Legislative analysis showed that within the framework of the new Law "On Enforcement Proceedings" and the related package, the judge's function undergoes radical simplification. If previously the judge checked substantive grounds when issuing a writ of execution, in the new model, they perform only data validation. They confirm identification data and deadlines but do not examine the substance of the case at the enforcement stage. This means a transition from a justice provider to the status of a digital notary.

In the process of recognition and enforcement of arbitral awards, RA legislation and the New York Convention require the court to check *ex officio* (on its own initiative) whether the enforcement of the award contradicts the RA public policy (Hokhoyan 2019, Aghababyan 2020). Doctrinal analysis shows that public policy is a qualitative, axiological variable. It includes elements of morality, state security, and social justice, which are not subject to formalization.

The results indicate that current algorithmic systems (DataLex Unified Electronic Enforcement System — UEES), which operate on binary (0/1) logic, are incapable of performing this assessment. The system cannot distinguish an unconscionable contract from a conscionable one if they are technically formulated correctly.

Thus, the doctrinal test confirms **Hypothesis 1**. Limiting the judge's role to digital validation leads to cognitive failure in cases requiring qualitative judgment. This phenomenon directly reflects the "Black Box" theory described by Frank Pasquale, according to which automated systems tend to ignore contextual and value nuances of legal norms, such as public policy. The consequence is that the system becomes vulnerable to **Type I Error** (false positive result): the algorithm will authorize the enforcement of an unlawful judgment solely because it is technically valid. This is not only a doctrinal crisis but also an erosion of state sovereignty, as the state loses control over the legality of acts enforced within its territory.

While the doctrinal test revealed substantive issues, operational statistics focused on procedural guarantees, specifically the right to notification. The analysis confirmed Hypothesis 2, demonstrating that automation encodes and reinforces judicial formalism.

The analysis of cases described in the Methodology (specifically *Vachik Karapetyan v. Armenia*) establishes that the right to a fair trial requires effective, not formal, notification. The court must be convinced that the person is factually aware of the proceedings.

However, the new digital model is based on automatic notification, where the system generates the enforcement act based on the electronic delivery timestamp. The results show that the algorithm lacks a feedback mechanism to verify whether the notification reached the addressee and was read. This leads to notification formalization—a situation where a person is legally considered notified, but factually is not.

Using the practice of the RA Administrative Court (e.g., case No. VD/0028/05/19) as an empirical basis, we observed the level of judicial formalism. Courts tend to refuse the restoration of deadlines if classic evidence of force majeure is absent, even in cases of technical failures.

When this human formalism is replaced by an algorithm, risk amplification occurs. The algorithm lacks empathy or a sense of equity to make an exception. Considering the

formalistic approaches existing in RA judicial practice, any technical malfunction practically results in a restriction of rights as a rule, because the system lacks **situational flexibility** to make exceptions. This proves that automation under RA conditions does not reduce error but multiplies its consequences. Systemic malfunctions turn into a legitimate tool for the infringement of rights.

Having confirmed the doctrinal and operational risks, the next step of the analysis was to check whether the RA model possesses mechanisms to restrain these risks. Comparative functional analysis confirms Hypothesis 3.

Comparing the RA new model with the established electronic justice ecosystems of Estonia and Poland revealed a serious structural omission. This analysis was conducted based on the principle of functional equivalence, seeking to identify how different jurisdictions balance the speed of automation with the necessity of legal protection.

- **Estonia (the human circuit-breaker):** While Estonia utilizes the zero-touch automation model for its order for payment procedure, it structurally maintains the institute of the Assistant Judge (*kohtunikuabi*) (Kalamees and Sein n.d.). Crucially, this role is not merely clerical or administrative. The Assistant Judge acts as a mandatory human-in-the-loop filter, empowered to review the claim before the automated issuance of the order. This human filter checks automated payment orders, preventing obviously illegal demands—such as those based on unfair contract terms or expired limitation periods—as noted in the European Bank for Reconstruction and Development report (EBRD 2023b). This mechanism ensures that the algorithmic speed does not override the substantive legality of the claim, effectively serving as a circuit-breaker that halts the automated process upon detecting irregularities.
- **Poland (the procedural emergency exit):** The Polish E-court system (*E-Sąd*) incorporates a robust Opt-Out Mechanism that guarantees procedural symmetry between the creditor and the debtor (European Journal of Economics, Law and Politics 2023). In this model, the system prioritizes the right to defense over enforcement efficiency: a simple, unreasoned objection by the debtor is sufficient to remove the case from the automatic mode and transfer it to a standard court hearing. This functions as a procedural emergency exit, acknowledging that digital convenience cannot override the constitutional right to a fair trial. By keeping the barrier to exit low, Poland ensures that automation serves only undisputed claims, preventing the system from becoming a tool for predatory enforcement.
- **Brazil (data integrity as a prerequisite):** The success of Brazil's judicial digitalization, particularly through the *Sistema Eletrônico de Execução Unificado* (SEEU), is predicated on high-level interoperability and data maturity (Conselho Nacional de Justiça 2022). Before fully automating enforcement actions, Brazil invested heavily in cleaning judicial data and ensuring seamless integration between tribunals and enforcement agencies. This approach contrasts sharply with the RA model, which attempts to automate enforcement while relying on fragmented and often inaccurate state registries. By prioritizing data quality, Brazil mitigates the Garbage In,

Garbage Out (GIGO) risk, ensuring that automated execution is based on verified, up-to-date information rather than erroneous database entries.

- **Armenia (the institutional deficit):** In the studied legislative package, both the assistant judge institute (as a preliminary filter) and a clear, simplified mechanism for opting out of automation are absent (Compulsory Enforcement Service of the Republic of Armenia 2020). The comparative analysis exposes a critical design flaw: the Armenian model attempts to achieve Estonian-level efficiency without Estonian-level safeguards. In case of an objection, the case does not transition to a simplified mode or automatically revert to a human judge. Instead, it requires complex appeal procedures, often involving state duties and professional legal representation, which is confirmed by sector analyses. This creates an algorithmic trap where the citizen bears the disproportionate burden of proving a technical error or invalid claim. Without these essential safeguards, the reform creates what this paper specifically defines as an Institutional Deficit. Rather than a broad metaphor, this deficit represents a precise structural imbalance: the speed of automated state coercion completely overtakes the availability of preventive legal defense. In the Armenian framework, this means the system operates without an emergency brake. If a flawed registry entry causes the algorithm to wrongly freeze a bank account, no preliminary human filter exists to catch the mistake. The state effectively automates its own errors, leaving the citizen to shoulder the entire procedural and financial burden of fixing them retroactively. This leads to the so-called **economic paradox of error**: erroneous acts generated at algorithmic speed create a new, more costly legal burden (appellate complaints, ECHR compensations, payments for forced idleness), which in the long run exceeds the savings from digitization, nullifying the economic efficiency of the reform.

Synthesizing these findings confirms our core premise: driven by objective system overload, the dematerialization of the writ effectively reduces the judge to a mere digital certifier. Without robust institutional safeguards (Hypothesis 3), this structural shift directly collides with the doctrinal imperative of public policy protection (Hypothesis 1) and procedural notification rights (Hypothesis 2). Rather than resolving administrative inefficiencies, the discretion-free algorithm ultimately encodes existing judicial formalism, escalating routine technical failures into systemic rights violations.

The research results unequivocally prove that the model envisaged in the RA, in its current form, contains a fundamental design flaw. It attempts to achieve efficiency by sacrificing judicial discretion, which, considering local infrastructural risks, will lead not to an increase in the quality of justice, but to its **de-subjectification**.

4. Discussion

Rather than merely confirming the functional vulnerabilities of the Armenian digitalization model, these findings must be situated within a broader socio-legal paradigm. The empirical and doctrinal synthesis demonstrates that the pursuit of statistical efficiency fundamentally alters the ontological nature of judicial power. By removing the human element, the state is not just accelerating a procedure; it is substituting constitutional guarantees with technological standards. This shift illustrates the precise danger of a system where technical failures are legally irreversible due to the absence of robust ex-ante recovery mechanisms or functional equivalents to the Estonian Assistant Judge. Consequently, the legal system is forced to validate algorithmic outputs even when they contradict foundational principles of public policy and equitable notification. It is crucial to address the primary counterargument often raised by proponents of structural digitalization: that removing human discretion inherently reduces arbitrariness, minimizes corruption risks, and guarantees procedural predictability. From an administrative perspective, a rigidly automated system ensures that identical claims are processed identically, entirely eliminating subjective judicial bias. However, this research posits that in the realm of justice, procedural predictability cannot be simply conflated with substantive legality. In a transitional legal system where state registries still suffer from data fragmentation and incomplete interoperability, structured automation does not eliminate arbitrariness; it merely transfers it from the human judge to the algorithm. When an automated system processes flawed data without the possibility of an immediate, human-driven exception, the resulting predictability translates into the predictable, systemic mass-production of legal errors. Thus, without built-in institutional safety valves—such as an accessible opt-out mechanism or an assistant judge—the administrative efficiency gained through the eradication of human bias is fundamentally negated by the encoding of algorithmic inflexibility. The obtained results are interpreted in the light of the "Double Normalization" theory of sociological jurisprudence (Contini and Reiling 2022). Our analysis showed that in the RA, technological standards are beginning to be perceived as legal norms, pushing out the constitutional requirement of being factually informed. This means that digital justice in the RA is proceeding not along the path of substantive transformation, but along that of automated bureaucracy. The results indicate that removing the judge from the process does not eliminate errors but makes them systemic and invisible until the appeal stage. This creates a situation where the citizen is deprived of judicial protection at the very moment when they need it most—at the start of the application of state coercion—which contradicts international fair trial standards.

Our results enter into conceptual contrast with the technological optimism prevailing in the reports of international bodies (World Bank EBRD), which prioritize cost reduction and speed. In contrast, our research supports the cautious approaches of Richard Susskind (Harvard Law School) and Dory Reiling (CCBE), who argue that automation should not replace judicial judgment.

Specifically, our results complement and move to a new plane the doctrinal works of Armenian scholars V. Hovhannisyan and T. Markosyan. If the aforementioned authors previously justified the necessity of protecting public policy in an analog court, our research proved that in a digital environment, this protection is technically impossible

without the human-in-the-loop principle. We demonstrated that Estonia's success is conditioned not by technology, but precisely by the preservation of that human filter, which is absent in the RA model.

The research develops the theory of Digital Formalism, showing how technical code reinforces procedural rigidity in a country with transitional justice. We formulated the concept of Institutional Deficit as a predictable indicator of the failure of digital reforms.

The obtained results provide grounds for revising the architecture of the system being introduced in the RA. To maintain the rule of law, it is necessary to legislatively enshrine the "digital presumption of good faith". We define this concept as a legal regime where any technological uncertainty, data discrepancy, or systemic failure must be interpreted to the detriment of the automated system and in favor of the human, ensuring the supremacy of legal protection over technical efficiency. This will oblige the system to interpret a technical failure in favor of the citizen, neutralizing the risk of denial of justice. Furthermore, it is proposed to apply the Brazilian experience, using data integration not only for confiscation but also for rights monitoring (Ministry of Justice and Public Security n.d.).

The research has objective limitations that must be taken into account when interpreting the results:

- **Ex-ante nature:** Since the implementation of the new Law "On Enforcement Proceedings" has been postponed until 2026, our analysis is predictive in nature and based on the legislative text rather than established practice.
- **Secondary data:** The analysis is based on international reports and existing judicial acts. In-depth interviews with judges and IT specialists, which could have revealed the internal technical limitations of the algorithm, are absent.
- Based on the identified problems, new research directions are proposed:
- **Algorithmic audit:** After the implementation in 2026, conduct an algorithmic audit of the UEES system to determine the actual statistics of Type I Errors (erroneous confiscations).
- **Sociological research:** Study the perceptions of lawyers and judges to determine the impact of automation bias on decision-making.

5. Conclusion

This research, combining the toolkit of doctrinal, statistical, and comparative analysis, arrives at the fundamental conclusion that the digital transformation of enforcement proceedings in the Republic of Armenia, although conditioned by the objective necessity of the judicial system's overload, contains fundamental doctrinal and institutional risks.

The dismantling of the writ of execution and the limitation of the judge's role to mere digital certification leads to the **de-subjectification** of the judiciary. It was proven that automated systems are currently unable to perform qualitative assessments of public policy and effective notification, which leads to the institutionalization of notification fiction and the violation of European Court of Human Rights standards. The absence of institutional safeguards (such as the Estonian Assistant Judge model), combined with the instability of RA digital infrastructures, creates a real danger that technological efficiency will be achieved at the expense of the rule of law.

Therefore, it is a vital necessity to legislatively enshrine the digital presumption of good faith and restore the human-in-the-loop principle. Ultimately, the legitimacy of digital justice depends not on the speed of the algorithm, but on its ability to err and to correct that error. Without maintaining the human-in-the-loop principle, we risk creating a system that will be technologically perfect, but legally blind.

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