ALGORITHMIC TRANSPARENCY AS A FUNDAMENTAL RIGHT IN THE DEMOCRATIC RULE OF LAW: A COMPARATIVE APPROACH TO REGULATION IN EUROPEAN, NORTH AMERICAN, AND BRAZILIAN CONTEXTS

Alana Engelmann [*]

Abstract: This article scrutinizes the escalating apprehensions surrounding algorithmic transparency, positing it as a pivotal facet for ethics and accountability in the development and deployment of artificial intelligence (AI) systems. By delving into legislative and regulatory initiatives across various jurisdictions, the article discerns how different countries and regions endeavor to institute guidelines fostering ethical and responsible AI systems. Within the United States, both the US Algorithmic Accountability Act of 2022 and The European Artificial Intelligence Act share a common objective of establishing governance frameworks to hold errant entities accountable, ensuring the ethical, legal, and secure implementation of AI systems. A key emphasis in both legislations is placed on algorithmic transparency and elucidation of system functionalities, with the overarching goal of instilling accountability in AI operations. This examination extends to Brazil, where legislative proposals such as PL 2.338/2023 grapple with the intricacies of AI deployment and algorithmic transparency. Furthermore, PEC 29/2023 endeavors to enshrine algorithmic transparency as a fundamental right, recognizing its pivotal role in safeguarding users' mental integrity in the face of advancing neurotechnology and algorithmic utilization. To ascertain the approaches adopted by Europe, the United States, and Brazil in realizing the concept of Algorithmic Transparency in AI systems employed for decision-making, a comparative and deductive methodology is employed. This methodology aligns with bibliographical analysis, incorporating legal doctrines, legislative texts, and jurisprudential considerations from the respective legal systems. The analysis encompasses Algorithmic Transparency, Digital Due Process, and Accountability as inherent legal constructs, offering a comprehensive comparative perspective. However, the mere accessibility of source codes is deemed insufficient to guarantee effective comprehension and scrutiny by end-users. Recognizing this, the imperative of explainability in elucidating how AI systems function becomes evident, enabling citizens to comprehend the rationale behind decisions made by these systems. Legislative initiatives, exemplified by Resolution No. 332/2020 of the National Council of Justice (CNJ), underscore the acknowledgment of the imperative for transparency and accountability in AI systems utilized within the Judiciary.

[*] Master's degree in Public Law, University of Vale do Rio dos Sinos, Rio Grande do Sul, Brazil. Email: alanagengelmann@hotmail.com / ORCID iD: https://orcid.org/0000-0002-3575-4000

Keywords: Algorithmic Accountability Act of 2022; algorithmic transparency; democratic rule of law; European artificial intelligence act; fundamental rights.

INTRODUCTION

Numerous changes have taken place in personal and interpersonal relations over the last decade, necessitating the law to keep pace with these advancements. The expansion of online commerce, the shift of human interactions into virtual realms, communication conducted through chatbots, and the growth of telemedicine all share a common goal: automating cumbersome tasks to make them faster.

The phenomenon responsible for all these changes was the technological progress brought about by the Fourth Industrial Revolution[1]. This revolution ushered in the expansion of intelligent systems driven by the exponential growth of data and technologies for automating daily activities.

An illustrative example is the implementation of algorithms in various activities, such as the decision-making process for financial credit approval. Additionally, there has been an expansion in the contractual realm with the adoption of smart contracts. In the field of medicine, robots capable of performing medical procedures have been employed. One of the sectors profoundly affected by the use of intelligent systems is social media, where algorithms are used to determine and establish patterns of user interest, greatly impacting the consumer market.

The legal domain has also been significantly impacted by the integration of new technologies, especially since the COVID-19 pandemic prompted a procedural automation movement due to the virtualization of processes. Procedural law has evolved in response to societal changes. In a tech-driven society, much discussion revolves around the possibility of incorporating algorithms into the judicial decision-making process to enhance efficiency and expedite proceedings.

This has sparked numerous debates, primarily because some argue that algorithms can exhibit discriminatory tendencies and fail to uphold fundamental rights. Setting aside the discussion of algorithmic biases fueled by databases with inherent biases, a growing debate surrounds algorithmic transparency as a means to combat these biases.

Consequently, a rising wave of regulations has emerged in various legal systems, stipulating the need for algorithmic transparency in all intelligent systems in operation. The aim is to achieve accountability in the decision-

[1] Schwab, Klaus. *The Fourth Industrial Revolution.* Geneva, Switzerland: World Economic Forum, 2016.

making process.

Considering that accountability is a fundamental element of the democratic rule of law, as it fosters transparency and a participatory model of democracy, this study seeks to demonstrate how the right to algorithmic transparency is gaining ground as a fundamental right in the European Union, the United States of America, as well as in Brazil through Constitutional Amendment Proposal (PEC) 29/2023.

The question raised by this study is as follows: How have Europe, the United States of America, and Brazil responded to the need for implementing the concept of algorithmic transparency in artificial intelligence systems used in decision-making processes?

To answer this question, a comparative and deductive method is employed, aligned with bibliographic analysis, utilizing doctrines on the subject, as well as legislative and jurisprudential perspectives adopted by the legal systems under examination. This analysis encompasses algorithmic transparency, Digital Due Process, and accountability, offering a comparative perspective.

Furthermore, the study explores the developments in the European Union regarding algorithmic transparency. The European Commission, recognizing the significance of AI systems in various sectors, including law, has proposed regulations aimed at ensuring the accountability and transparency of AI applications. The proposal emphasizes risk assessment, data quality, and human oversight, all of which are integral to accountable algorithmic decision-making.

Similarly, in the United States, discussions have been ongoing concerning the regulation of AI systems and algorithmic transparency. Various stakeholders, including government bodies, tech companies, and civil society organizations, have engaged in dialogues about striking a balance between innovation and oversight. Initiatives are being explored to enhance transparency in AI systems, thereby minimizing the risk of bias and discrimination.

In the Brazilian context, the conversation around algorithmic transparency has gained momentum with the introduction of Constitutional Amendment Proposal (PEC) 29/2023. This proposal emphasizes the need for transparent and accountable AI systems, particularly those employed in decision-making processes. The Brazilian legal system is adapting to the evolving technological landscape by acknowledging the importance of transparency in maintaining fundamental rights and preventing potential abuses.

In conclusion, the global landscape is witnessing a transformation in legal considerations due to the increasing integration of AI systems in decision-making processes. Algorithmic transparency is emerging as a crucial element

for upholding democratic principles and safeguarding fundamental rights. While each jurisdiction—the European Union, the United States of America, and Brazil—approaches this matter differently, the common thread is the recognition of the need for accountable and transparent AI systems.

The study sheds light on the efforts made in these jurisdictions to strike a balance between harnessing the potential of AI technology and ensuring ethical, accountable, and transparent usage. This ongoing evolution signifies the shared understanding that algorithmic transparency is not just a technological concern but a fundamental right in the democratic rule of law.

I. THE DIGITAL DUE PROCESS AND THE NEED FOR TRANSPARENT DECISION-MAKING IN ACCORDANCE WITH THE DEMOCRATIC RULE OF LAW

Judicial Transparency has always been an inherent premise of the Democratic Rule of Law. Furthermore, it has consistently been a fundamental requirement of due process. This is evident in various legal systems that include provisions for transparency within their constitutions. For instance, in Brazil, the right to information is recognized as a fundamental right, demonstrating that all public agents have a duty to be accountable to society, as citizens are constitutionally guaranteed the right to access official information[2].

It is challenging to disconnect the idea of Judicial Transparency from that of accountability, as both are derived from the Democratic Rule of Law and pertain to the fact that every citizen has the right to participate in and understand the mechanisms of the Public Power. This is evident in the Justice System, where transparency and publicity are present across all domains.

Due Process of Law, referring to the constitutional model of legal proceedings[3], demands transparency in all actions undertaken by the Judiciary. The Brazilian legal system has adopted the idea of the duty to justify judicial decisions to ensure transparency and scrutiny of procedural actions, revealing the parameters employed by the adjudicator in the decision-making process.

Thus, Accountability is a consequence of Judicial Transparency. By virtue of the concept of Transparency itself, the need for clarity and transparency in all procedures, particularly in the decision-making process, allows for scrutiny of actions within the Justice System.

Expanding on this notion, the principle of Publicity of Procedural Acts is

---

[2] In the Brazilian case, according to the Constitutional provision abstracted from art. 5th, inc. XIV, "access to information is ensured to all and the secrecy of the source is safeguarded, when necessary for professional practice".

[3] Andolina, Italo, and Giuseppe Vignera. *Il modelo costituzionale del processo civile italiano*. Torino: Giappichelli Editore, 1990.

intrinsically linked to transparency and accountability, representing, in practice, a fundamental right with guaranteed access to information for all through constitutional provision.

The access to information facilitates both internal and external oversight of public entities' activities to ensure the legality of certain procedures. Thus, accountability is essentially the 'possibility of overseeing activities conducted by the State, an intrinsic element of democracy itself.'[4]

While transparency is a procedural and constitutional precept, it can be extended to any decision-making process, whether judicial or otherwise, as all processes must adhere to the tenets of the Federal Constitution and the idea of due process.

As demonstrated above, there is a trend toward automating repetitive tasks, previously performed by humans, with certain decision-making processes now delegated to artificial intelligence systems. Numerous activities, repetitive or not, can be proficiently carried out by intelligent systems, utilizing appropriately programmed algorithms and databases. This facilitates analysis, identification, and application of patterns with greater precision than a human could achieve.

However, a pressing issue arises: the ethical development of intelligent systems to avoid certain biases inherent to the system. These biases are ingrained in society and can be found in any decision-making entity. Yet, the aim is not to list or delve into a discussion about who possesses more or fewer biases. If algorithms are consistently designed to yield positive and enhanced outcomes in the decision-making process, the decisions made by these systems must be as coherent as possible, respecting the Federal Constitution and all existing legal tenets.

A cornerstone of the Democratic Rule of Law is the Due Process of Law. According to Nicolas Suzor[5], it is the due process of law that provides parameters and guidelines to ensure that the Judiciary remains impartial and makes transparent decisions. This highlights the need for the creation of digital constitutionalism, aligning decisions made by intelligent systems with a constitutional model, thereby achieving greater transparency and providing users with greater insight into the decision-making process of the machine. Additionally, parameters must be established to enforce objective accountability on the creators of such systems, given that they are also

---

[4] Lucon, Paulo Henrique dos Santos. "Processo Virtual, Transparência e Accountability." In: *Inteligência Artificial e Direito Processual: Os Impactos da Virada Tecnológica no Direito Processual* (edited by Dierle Nunes, Paulo Henrique dos Santos Lucon and Erik Navarro Wolkart) Salvador: Editora JusPodivm, 2020, 458-459.

[5] Suzor, Nicolas. "*Digital constitutionalism: Using the rule of law to evaluate the legitimacy of Governance by platforms*." [Online] Available at: https://journals.sagepub.com/doi/10.1177/2056305118787812. Accessed on 11 Jul. 2023.

responsible for managing data and the behaviors and acceptable content adopted by the machine[6].

Echoing Nicolas Suzor's perspective, Frederick Mostert's notion of 'digital due process'[7] argues that one of the central pillars, as well as obstacles faced, is the absence of transparency. As he notes, "As can be seen, transparency, accountability, and contestability are vital pillars of digital due process". This absence of transparency results in arbitrary decision-making processes due to "black boxes", which prevent users from understanding the parameters and databases used in the decision-making process[8].

The debate surrounding the concept of digital due process is far-reaching and could compose an entire essay in itself. However, from the analysis presented above, one can already grasp the necessity of Transparency for a Democratic Rule of Law and for the decision-making process itself. Given that algorithms are assuming this role in today's society, it is clear that the subject of Algorithmic Transparency is not a novel concept.

II. THE US ALGORITHMIC ACCOUNTABILITY ACT OF 2022 AND THE EUROPEAN ARTIFICIAL INTELLIGENCE ACT

Algorithmic transparency is such a prevalent topic today that there are many regulations around the world. Two examples of this are the regulatory proposals coming from the US Algorithmic Accountability Act and The European Artificial Intelligence Act, both of which address algorithmic transparency as a means to achieve more ethical and responsible artificial

---

[6] Nicolas Suzor even proposes adopting the idea of a digital due process, stating that due process can be expected to have two main components. The first component is that, before a regulatory decision is made, it needs to be made according to valid criteria and processes. Second, once a decision is made, due process requires that aggrieved users have some independent review and recourse. This idea, when approaching the due process of law, allows users to have greater security and to question decisions taken in court or through arbitration. Some of the studied platforms have internal appeals processes for challenging decisions, but these are not specified or expressed as binding in the contractual documents. In practice, these processes are often poorly understood and not particularly reliable. Suzor, Nicolas. "*Digital constitutionalism: Using the rule of law to evaluate the legitimacy of Governance by platforms*." [Online] Available at: https://journals.sagepub.com/doi/10.1177/2056305118787812. Accessed on 11 Jul. 2023.

[7] Mostert, Frederick. "Digital Due Process": A need for online Justice. *Journal of Intellectual Property Law & Practice*, forthcoming. March 11, 2020. [Online] Available at: https://ssrn.com/abstract=3537058. Accessed on 11 Jul. 2023.

[8] Frazão, Ana. "Julgamentos Algorítmicos: A Necessidade de Assegurarmos as Preocupações Éticas e o Devido Processo Legal." In: *Tutela Jurídica do Corpo Eletrônico: Novos desafios ao direito digital* (edited by Cristiano Colombo, Wilson Engelmann and José Luiz de Moura Faleiros Júnior). Indaiatuba, SP: Editora Foco, 2022, 593.

intelligence (AI) systems.

The US Algorithmic Accountability Act of 2022 and The European Artificial Intelligence Act share many similarities. For instance, neither law seeks to prohibit or limit the use of AI systems (ADS[9]). Instead, both aim to establish the necessary governance infrastructure to hold bad actors accountable and enable well-intentioned actors to ensure and demonstrate the ethics, legality, and safety of their ADS[10].

The key point of this analysis is to demonstrate that both legislations introduce models of accountability, demanding organizations that create intelligent systems provide a set of data and information enabling auditability of these systems.

Multiple sections of the US Algorithmic Accountability Act of 2022 address the need for algorithmic transparency. Section 4[11], for instance, mandates that ADS and Algorithmic Decision Control Processes (ACDP) systems be transparent, revealing the parameters used in conducting factual assessments, along with mechanisms for challenging, correcting, appealing, and opting out of decisions made by the system[12].

Furthermore, Section 4[13] aims for algorithmic justice, requiring mechanisms and tools to enhance ADS through combating bias and non-discrimination, allowing for transparent systems that provide explainability and contestability, enabling users to challenge the decisions rendered[14].

---

[9] Automated Decision Systems.

[10] Mökander, Jakob, Prathm Juneja, David S. Watson, and Luciano Floridi. "The US Algorithmic Accountability Act of 2022 vs. The EU Artificial Intelligence Act: what can they learn from each other?" *Minds & Machines* 32, 751–758 (2022). [Online] Available at: https://doi.org/10.1007/s11023-022-09612-y. Accessed on 11 Jul. 2023.

[11] S.3572 - Algorithmic Accountability Act of 2022. 117th Congress (2021-2022). Available at: https://www.congress.gov/bill/117th-congress/senate-bill/3572/text. Access in: 24 aug. 2023.

[12] Gursoy, Furkan, Ryan Kennedy, and Ioannis Kakadiaris. "*A Critical Assessment of the Algorithmic Accountability Act of 2022*" (March 3, 2022). [Online] Available at: http://dx.doi.org/10.2139/ssrn.4193199. Accessed on 24 Aug. 2023.

[13] "Sec. 4. Requirements For Covered Entity Impact Assessment.

(8) Evaluate the rights of consumers, such as—

(B) by assessing the transparency and explainability of such system or process and the degree to which a consumer may contest, correct, or appeal a decision or opt out of such system or process, including—

(11) Identify any capabilities, tools, standards, datasets, security protocols, improvements to stakeholder engagement, or other resources that may be necessary or beneficial to improving the automated decision system, augmented critical decision process, or the impact assessment of such system or process, in areas such as—

(C) transparency, explainability, contestability, and opportunity for recourse".

[14] Gursoy, Furkan, Ryan Kennedy, and Ioannis Kakadiaris. "*A Critical Assessment of the Algorithmic Accountability Act of 2022*" (March 3, 2022). [Online] Available at: http://dx.doi.org/10.2139/ssrn.4193199. Accessed on 24 Aug. 2023.

Finally, the US Algorithmic Accountability Act of 2022 provides, in Section 5[15], that an initial report has to be provided before the implementation of the ADS, containing summary information on how the transparency and explainability measures will be implemented[16].

Additionally, the Act requires that organizations carry out impact assessments for (i) ADS before their deployment and (ii) expanded decision-making processes after ADS deployment.

On the other hand, The European Artificial Intelligence Act places significant importance on algorithmic transparency. This is evident in the Act's title I, where general provisions in Article 1, paragraph D, state that one of the regulation's objectives is to establish "harmonized transparency rules for AI systems designed to interact with natural persons, emotion recognition systems, and biometric categorization systems, as well as for AI systems used for generating or manipulating image, audio or video content."[17]

In a simple analysis of the text prepared by the European Commission, it is clear that title IV, from art. 52, when providing for the transparency obligations applicable to certain artificial intelligence systems, refers to the need for certain systems, such as those that interact with human beings, those that are used to detect emotions or determine the association with (social) categories based on biometric data, those who generate or manipulate content are subject to obligations arising from algorithmic transparency, and their users will have the right to be informed when they interact with an AI system[18].

The legislation itself says that the non-discriminatory nature and

---

[15] "Sec. 5. Requirements For Summary Reports to The Commission.

(1) contain information from the impact assessment of such system or process, as applicable, including—

(H) documentation of whether and how the covered entity implements any transparency or explainability measures, including—

(i) which categories of third-party decision recipients receive a copy of or have access to the results of any decision or judgment that results from such system or process; and

(ii) any mechanism by which a consumer may contest, correct, or appeal a decision or opt out of such system or process, including the corresponding website for such mechanism, where applicable".

[16] Gursoy, Furkan, Ryan Kennedy, and Ioannis Kakadiaris. "*A Critical Assessment of the Algorithmic Accountability Act of 2022*" (March 3, 2022). [Online] Available at: http://dx.doi.org/10.2139/ssrn.4193199. Accessed on 24 Aug. 2023.

[17] Proposal For a Regulation of The European Parliament and of The Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0206. Accessed on: 25 Aug. 2023.

[18] Proposal For a Regulation of The European Parliament and of The Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0206. Accessed on: 25 Aug. 2023.

transparency of the AI systems used are essential to ensure respect for the fundamental rights of the people concerned, namely their rights to free movement, non-discrimination, protection of privacy and personal data, international protection, and good administration[19].

For this reason, algorithmic transparency ends up being assimilated with high-risk AI systems, which must be subject to compliance with requirements relating to the quality of the datasets used, technical documentation and record-keeping, transparency and provision of information to users, human supervision, robustness, accuracy, and cybersecurity[20].

According to the provisions of art. 13, with the aim of eliminating the opacity that can make certain AI systems incomprehensible or too complex for natural persons, high-risk AI systems must observe a certain degree of transparency, and all users have the right to interpret the output of the system and use it properly. As such, high-risk AI systems should be accompanied by relevant documentation and instructions for use and include concise and clear information, including information regarding possible risks to fundamental rights and discrimination, where applicable[21].

On the other hand, there are several differences found in both regulations. One distinction concerns the fact that the US Algorithmic Accountability Act of 2022 has a demarcation of its scope. Its transparency obligations apply to companies that engage ADSs to make critical decisions, meaning any decision that has significant legal or material effects on a consumer's life, including decisions that concern access to education, employment, and financial services. However, the European Artificial Intelligence Act only requires that so-called 'high-risk AI systems' undergo compliance assessment. Despite appearing to be a minor difference, it turns out that ethical tensions do not emerge only from the use of ADS but can also be related to the broader context, encompassing the decision-making process supported by ADS. What is perceived is that, instead of questioning what an AI system is, one should focus on identifying the decision-making processes

[19] Proposal For a Regulation of The European Parliament and of The Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0206. Accessed on: 25 Aug. 2023.

[20] Proposal For a Regulation of The European Parliament and of The Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0206. Accessed on: 25 Aug. 2023.

[21] Proposal For a Regulation of The European Parliament and of The Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0206. Accessed on: 25 Aug. 2023.

that require additional layers of public oversight[22].

Another issue worth mentioning, which is addressed by the US Algorithmic Accountability Act of 2022, concerns its approach to an ethical and legal assessment of systems, requiring organizations to compare the performance of a new ADS with the pre-existing decision-making processes that he intends to improve or replace, thus showing the positive and negative points of the system in the decision-making process. This turns out to be a positive point because it forces the evaluation of the system regarding the risks associated with it, namely, those of privacy violations and discriminatory results, to the detriment of the decision-making process carried out by people who are also subject to many cognitive biases and can be influenced by prejudices and circumstantial factors[23]. Given this, when well used, the ADS can lead to more objective and potentially fairer decisions.

Furthermore, this analysis brought above, combined with the objective of achieving greater algorithmic transparency[24], helps technology providers and courts to compare the ADS with the relative possibilities and limitations of human decision-makers and to subject them to appropriate and proportionate obligations of quality assurance and transparency, all of this through the description of the existing decision-making process, listing the benefits that can be achieved through its implementation along with the decision-making process[25].

Completing the list of guarantees that the US Algorithmic Accountability Act of 2022 seeks to implement, something that deserves to be highlighted is the equal treatment of decision-makers and equal results for different protected groups, which is a result that is difficult to achieve, considering that an ADS can improve the overall accuracy of a decision-making process, but it runs the risk of discriminating against specific subgroups in the population.

---

[22] Mökander, Jakob, Prathm Juneja, David S. Watson, and Luciano Floridi. "The US Algorithmic Accountability Act of 2022 vs. The EU Artificial Intelligence Act: what can they learn from each other?" *Minds & Machines* 32, 751–758 (2022). [Online] Available at: https://doi.org/10.1007/s11023-022-09612-y. Accessed on 11 Jul. 2023.

[23] Mökander, Jakob, Prathm Juneja, David S. Watson, and Luciano Floridi. "The US Algorithmic Accountability Act of 2022 vs. The EU Artificial Intelligence Act: what can they learn from each other?" *Minds & Machines* 32, 751–758 (2022). [Online] Available at: https://doi.org/10.1007/s11023-022-09612-y. Accessed on 11 Jul. 2023.

[24] Bearing in mind that when we talk about algorithmic transparency, we are not just talking about a simple release of the source code, but we are talking about the process of explaining the system, providing all its users with knowledge about the parameters adopted in the decision-making process.

[25] Mökander, Jakob, Prathm Juneja, David S. Watson, and Luciano Floridi. "The US Algorithmic Accountability Act of 2022 vs. The EU Artificial Intelligence Act: what can they learn from each other?" *Minds & Machines* 32, 751–758 (2022). [Online] Available at: https://doi.org/10.1007/s11023-022-09612-y. Accessed on 11 Jul. 2023.

For this, the entities responsible for the systems are required to carry out a continuous assessment of any differential performance associated with race, color, sex, age, disability, religion, family, socioeconomic or veteran status of the data subjects, in view of that these entities have such information[26].

Given this, it is clear that the US Algorithmic Accountability Act, like the European Artificial Intelligence Act, is about more than just ADS regulation and is about which decisions should be considered critical and what outcomes should be sought. The difficult questions that need to be addressed concern what decision criteria and evidence, through the analysis of input data, should be considered legitimate, or at least socially acceptable, for different private and public decision-making processes. Policymakers should, therefore, move beyond attempts to ensure minimal "algorithmic accountability" and instead focus on creating public governance mechanisms that allow organizations to find justifiable trade-offs within the limits of legal permissibility and from commercial viability to shaping how ADSs are designed and what purposes they serve[27].

On the other hand, despite the regulations addressed, the European Union went further with the creation of the European Center for Algorithmic Transparency (ECAT), with the objective of realizing algorithmic transparency. It seeks ways to provide technical assistance and practical guidance for transparent and reliable algorithmic systems that ensure a safe, predictable, and reliable online environment. It so happens that the Digital Services Law requires algorithmic accountability and transparency audits. In view of this, ECAT requires very large online platforms (VLOP) and very large online search engines (VLOSE) operating in the European Union to identify, analyze, and assess certain systemic risks arising from the design and operation of their services and related systems, including algorithmic systems. In view of this, such platforms must undertake to address the identified risks, directly or indirectly related to the functioning of the algorithmic system in use[28].

It is clear, therefore, that accountability itself is directly linked to the idea of responsibility. On the other hand, as the objective here is to demonstrate the need for accountability with the objective of achieving due process of

---

[26] Mökander, Jakob, Prathm Juneja, David S. Watson, and Luciano Floridi. "The US Algorithmic Accountability Act of 2022 vs. The EU Artificial Intelligence Act: what can they learn from each other?" *Minds & Machines* 32, 751–758 (2022). [Online] Available at: https://doi.org/10.1007/s11023-022-09612-y. Accessed on 11 Jul. 2023.

[27] Mökander, Jakob, Prathm Juneja, David S. Watson, and Luciano Floridi. "The US Algorithmic Accountability Act of 2022 vs. The EU Artificial Intelligence Act: what can they learn from each other?" *Minds & Machines* 32, 751–758 (2022). [Online] Available at: https://doi.org/10.1007/s11023-022-09612-y. Accessed on 11 Jul. 2023.

[28] About the European Centre For Algorithmic Transparency. Available at: https://algorithmic-transparency.ec.europa.eu/index_en: Accessed on: 28 Aug. 2023.

law, the debates about "algorithmic responsibility" are not exhausted, making only a mention that the regulation regarding transparency and accountability itself, just as the North American example and the one from the European Union duly address, should cover points that deal with the accountability of the agents responsible for the system, and the debate about this transcends procedural law and encompasses other areas of law.

Although both legislations do not address the idea of Algorithmic Transparency as a Fundamental Right, it is clear the care that both systems have in bringing effective algorithmic transparency and with a leading role in the implementation of intelligent systems, which goes back a long way to the idea of accountability. Both the US Algorithmic Accountability Act and the European Artificial Intelligence Act demonstrate how it is possible to create a regulatory model that objectively achieves the accountability of intelligent systems and should be a model for creating systems that seek greater transparency algorithmically around the world, by authorizing the use of transparent, auditable intelligent systems that respect ethical precepts, all in line with the idea of due legal process.

III. THE BRAZILIAN PROPOSAL FOR REGULATION OF ALGORITHMIC TRANSPARENCY AS A FUNDAMENTAL RIGHT IN PROPOSED CONSTITUTIONAL AMENDMENT (PEC) Nº 29/2023

The Brazilian legal framework encompasses various projects for the regulation of algorithmic transparency. Several bills aim to address the theme of Artificial Intelligence, such as PL nº 5.051/2019[29], PL 21/2020[30], and PL 872/2021[31]. The most recent bill, PL nº 2.338/2023[32], which broadly deals with the use of Artificial Intelligence, also addresses the topic of Algorithmic Transparency and the need for explainability of decisions made by intelligent systems.

---

[29] Brazil. Senado Federal. *Projeto de Lei n° 5051, de 2019*. Establishes the principles for the use of Artificial Intelligence in Brazil. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/138790. Accessed on 11 Feb. 2023.

[30] Brazil. Senado Federal. *Projeto de Lei n° 21, de 2020*. Establishes fundamentals, principles and guidelines for the development and application of artificial intelligence in Brazil and makes other provisions. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/151547. Accessed on 11 Jul. 2023.

[31] Brazil. Senado Federal. *Projeto de Lei n° 872, de 2021*. Provides for the ethical frameworks and guidelines that underlie the development and use of Artificial Intelligence in Brazil. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/147434. Accessed on 11 Jul. 2023..

[32] Brazil. Senado Federal. *Projeto de Lei n° 2.338 de 2023*. Provides for the use of Artificial Intelligence. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/157233. Accessed on 11 Jul. 2023.

Despite the aforementioned bills, the theme of Algorithmic Transparency is so prominent that it is currently under consideration in the Brazilian Senate in the form of Proposed Constitutional Amendment (PEC) nº 29/2023[33]. This proposed amendment seeks to alter the Federal Constitution to include protection of mental integrity and algorithmic transparency among fundamental rights and guarantees. At first glance, combining these two distinct themes in one proposal might seem unusual, but upon examining the justification of the text, their correlation becomes evident.

Under the premise of introducing a new human right, "neuro-rights," the proposal aims to establish control over the direct interference of algorithmic processes in artificial intelligence systems and technological development. This is driven by the lack of sufficient legal protection to safeguard users' physical and mental integrity in light of the rapid advancement of neurotechnology and the use of algorithms in AI systems.

The idea stems from the expansion of social networks, which often influence users' physical and mental integrity. Some scholars argue that these platforms' algorithms are designed to make users dependent on the tool and follow certain behavioral patterns indicated by ads and content directed by AI systems.

This initiative has a significant underlying objective: to promote the ethical development of AI systems, a widely debated topic. From a legal standpoint, many discussions conclude that algorithmic transparency will bring benefits by enabling all citizens to understand the functioning of the system to which they are subjected in various decision-making processes, whether administrative or judicial.

However, even though these bills address Algorithmic Transparency, they do not detail how it will be achieved or whether it will merely involve releasing the source code of the intelligent system without explaining how it operates. This initiative primarily aims to encourage the ethical development of AI systems.

Similarly, the requirement for algorithmic transparency and accountability was established by the National Council of Justice (CNJ) in Resolution No. 332/2020, which sought to regulate ethical, transparent, and governance criteria for the production and use of Artificial Intelligence in the Judiciary. Article 8, Section VI of Resolution No. 332/2020 mandates the right to and the necessity of explainability when the Judiciary employs an AI tool.

---

[33] Brazil. Senado Federal. *Proposta de Emenda à Constituição nº 29/2023.* Amends the Federal Constitution to include, among the fundamental rights and guarantees, the protection of mental integrity and algorithmic transparency. Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/158095. Accessed on: 24 aug. 2023.

This resolution was created to fill the existing regulatory gap regarding the use of AI by the courts, ensuring that AI development projects must pass through the filter of fundamental rights[34].

On the other hand, when referring to transparency, CNJ Resolution nº 332 was not clear and did not even provide further details on how it will be proceeded so that there is an explanation for the parties about the use of software in decision-making, with the aim of enabling all those involved to face the system, and it was limited to clarifying what transparency and publicity would be, as well as the need for an explanation, with the aim of putting these principles into effect[35].

Thus, it is clear that including algorithmic transparency in the list of fundamental rights is an important step, since only with the constitutional guarantee of algorithmic advertising, which was previously protected by commercial secrecy, will it be possible to fulfill the idea of due legal process[36] - or digital due process. In addition, greater efforts will be needed on the part of the Public Power to obtain this algorithmic transparency, which currently does not exist in private initiative systems and which may contain biases due to the impossibility of knowing the algorithms used and the black boxes of artificial intelligence systems.

However, it is argued here that algorithmic transparency alone is not enough to protect the vulnerable, especially the digitally vulnerable, in the face of technological development. The simple availability of a source code or disclosure of the algorithm used in the technological system will be something incomprehensible to a person who does not have technical knowledge of programming. Although technological development is creating the need for everyone to have a minimum knowledge of the use of technologies, citizens cannot be forced to understand how an algorithm works. The State must provide adequate means for understanding its operation.

Given that even the judicial process employs intelligent systems to

---

[34] Vale, Luís Manoel Borges do. "A Tomada de Decisão por Máquinas: A Proibição, no Direito, de Utilização de Algoritmos não Supervisionados." In: *Inteligência Artificial e Direito Processual: Os Impactos da Virada Tecnológica no Direito Processual* (edited by Dierle Nunes, Paulo Henrique dos Santos Lucon and Erik Navarro Wolkart). 2nd. ed. Salvador: Editora JusPodivm, 2021, 798.

[35] Gaio Júnior, Antônio Pereira, and Fábio Antônio Silva. "Direito, Processo e Inteligência Artificial. Diálogos Necessários ao Exercício da Jurisdição." *Revista Eletrônica de Direito Processual – REDP*. Rio de Janeiro. Ano 17. Volume 24. Número 1. Jan-Abr/2023. [Online] Available at: https://www.e-publicacoes.uerj.br/index.php/redp/article/view/72240. Accessed on 11 Jul. 2023.

[36] Passos, José Joaquim Calmon de. *O devido processo legal e o duplo grau de jurisdição*. São Paulo: Saraiva, 1981.

automate its functions – as exemplified by the Victor system[37] – there is an obligation imposed by the Federal Constitution and the Code of Civil Procedure[38] for the transparency of the system used and for enabling its oversight and auditing, all in line with due process.

It must be remembered that any system used by any public entity must already be transparent and must provide its source code in an easily accessible manner to the entire population using the State's services. Failure to do so would violate the fundamental rights stipulated in the Federal Constitution, such as the publicity of legal proceedings and principles of public administration. However, this is not enough.

With the mere release of source code, with transparency presented in a straightforward manner, parties would have to hire experts to conduct oversight and audits of the system. This infringes on due process by violating the principle of equality; there would be no parity of arms, as the financially less privileged party would not be able to afford the necessary fees to hire qualified professionals.

On the other hand, as mentioned earlier, the Democratic Rule of Law demands democratic participation by all its agents. All have the right to understand how AI systems work, and this right can only be realized through system explainability, which directly relates to the idea of accountability.

Therefore, adopting a hermeneutical perspective emphasizes the importance of observing constitutional principles during decision-making processes. As Lenio Luiz Streck[39] points out, legal interpretation is not philology, given the myriad of issues arising in the process of understanding

---

[37] Brazil has the first Constitutional Court in the world to use AI, Victor, in the STF, which separates and classifies procedural documents to identify cases of extraordinary appeal. The Victor program presented, when it started, in 2018, an annuity of 85%, and today it reaches 95%. Furthermore, it is responsible for identifying processes with general repercussions. Ribeiro, Darci Guimarães. *O Novo Processo Civil Brasileiro: presente e futuro*. Londrina: Thoth, 2020, 224.

[38] Remembering that the Civil Procedure Code of 2015 provides, in its art. 1, that the Civil Procedure will be ordered, disciplined and interpreted according to the values and fundamental norms established in the Federal Constitution, showing the movement of Constitutionalization of the Procedural Law initiated by Eduardo Couture, in his Proyecto de Code de Procedimiento Civil para Uruguay, of 1945 , as well as in his first essay dealing with the subject from this perspective, Las garantías constitucionales del proceso civil, published in 1948, the subject being hailed with great enthusiasm by Enrico Tullio Liebman in 1952 in the Rivista di Diritto Processuale. Right from the start, Couture states that the objective of his text is to show "the extent to which the Code of Civil Procedure and its complementary laws are the text that regulates the guarantee of justice contained in the Constitution". Couture, Eduardo. "Las garantías constitucionales del proceso civil." In: *Estudios de derecho procesal civil* (edited by Eduardo Couture). Buenos Aires: Ediar, 1948, t. I, 19.

[39] Streck, Lenio Luiz. *O que é isto: decido conforme minha consciência?* Porto Alegre: Livraria do Advogado, 2013, 75.

the law. Adherence to constitutional principles facilitates the reconstruction of everyday interaction and reduces the possibility of expanding semantic meanings of the text[40], thereby avoiding decisions that conflict with due process. Only with effective accountability, achieved through oversight of actions taken by systems, can parameters adopted by AI systems in decision-making processes be analyzed. This can prevent biases and infringements on other fundamental rights.

In conclusion, incorporating algorithmic transparency as a fundamental right is a significant advancement in the regulation of artificial intelligence systems. However, greater efforts are necessary to ensure that the principle of algorithmic transparency is not futile. In addition to transparency, system explainability is necessary, in line with due process. Through explainability, it will be possible to verify whether the system respects constitutional precepts, question it, and hold it accountable for any damages caused by biases.

CONCLUSION

In light of the evolving landscape of algorithmic transparency regulations and their implications, it becomes evident that the global legal community is striving to address the intricate challenges posed by artificial intelligence systems. Initiatives such as the US Algorithmic Accountability Act of 2022 and the European Artificial Intelligence Act underline the significance of accountability and transparency in AI systems, aiming to ensure ethical and responsible use. These legislations introduce mechanisms that require creators of intelligent systems to provide comprehensive data and information, fostering auditability and fairness.

Furthermore, the Brazilian proposal to enshrine algorithmic transparency as a fundamental right within PEC 29/2023 reflects a growing awareness of the intertwining complexities of AI and individual rights. This constitutional amendment seeks to protect not only mental integrity but also the openness of algorithmic processes. This linkage serves to address the potential impact of algorithms on mental well-being, a concern exacerbated by the rise of algorithm-driven social media platforms. However, while this proposal underscores the ethical development of AI systems, it prompts essential questions about the practicality of transparency and explicability in the legal and public domains.

In alignment with these endeavors, the National Council of Justice's Resolution No. 332/2020 acknowledges the need for algorithmic transparency and accountability in the judicial sphere. Nonetheless, its

[40] Frohlich, Afonso Vinício Kirschner, and Wilson Engelmann. Inteligência *Artificial e Decisão Judicial: Diálogo entre benefícios e riscos.* 1st. ed. Curitiba: Appris, 2020, 102-103.

implementation leaves room for further specification on the mechanisms that will ensure genuine explicability of algorithmic decisions. To fully realize transparency's potential, it's not solely about disclosing source code but also about ensuring comprehensibility for all stakeholders, thereby safeguarding due process and democratic participation.

Ultimately, the inclusion of algorithmic transparency as a fundamental right marks a pivotal step toward shaping the future of artificial intelligence governance. Yet, the journey doesn't end here. True accountability encompasses not only revealing algorithms but also demystifying their functioning and their consequences, especially for those who lack technical expertise. The imperative is to strike a balance between transparency and comprehensibility, empowering individuals to engage meaningfully with AI systems while fostering responsible innovation.

Responding to the problem listed above, each jurisdiction deals with the matter from a different angle. Although the European and North American legal systems have assimilations, since both deal with Algorithmic Transparency through the provision of accountability, the legal system seeks to bring algorithmic transparency to the list of fundamental rights, but without specific legislation on the effectiveness of an accountability. As previously mentioned, it is extremely difficult to analyze the idea of transparency without accountability and accountability without transparency, given that both are related. Thus, it is perceived that there is a discrepancy in the approach of the theme by Europe and the United States of America, to the detriment of Brazil.

As legal systems worldwide continue to grapple with these intricate issues, it is imperative that a collaborative and iterative approach is adopted, ensuring that algorithmic accountability evolves in tandem with technological progress. The convergence of legal expertise, technological insight, and public engagement will ultimately determine the success of these regulations in fostering ethical AI and preserving the rights and well-being of individuals in an increasingly algorithmic world.

REFERENCES

Andolina, Italo, and Giuseppe Vignera. *Il modelo costituzionale del processo civile italiano*. Torino: Giappichelli Editore, 1990.

Brazil. Senado Federal. *Projeto de Lei n° 2.338 de 2023*. Provides for the use of Artificial Intelligence. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/157233. Accessed on 11 Jul. 2023.

Brazil. Senado Federal. *Projeto de Lei n° 21, de 2020*. Establishes fundamentals, principles and guidelines for the development and

application of artificial intelligence in Brazil and makes other provisions. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/151547. Accessed on 11 Jul. 2023.

Brazil. Senado Federal. *Projeto de Lei n° 5051, de 2019*. Establishes the principles for the use of Artificial Intelligence in Brazil. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/138790. Accessed on 11 Feb. 2023.

Brazil. Senado Federal. *Projeto de Lei n° 872, de 2021.* Provides for the ethical frameworks and guidelines that underlie the development and use of Artificial Intelligence in Brazil. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/147434. Accessed on 11 Jul. 2023.

Brazil. Senado Federal. *Proposta de Emenda à Constituição nº 29/2023.* Amends the Federal Constitution to include, among the fundamental rights and guarantees, the protection of mental integrity and algorithmic transparency. Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/158095. Accessed on: 24 aug. 2023.

Brazil. Senado Federal. *Proposta de Emenda à Constituição nº 29/2023.* Amends the Federal Constitution to include, among the fundamental rights and guarantees, the protection of mental integrity and algorithmic transparency. [Online] Available at: https://www25.senado.leg.br/web/atividade/materias/-/materia/158095. Accessed on 24 Aug. 2023.

Couture, Eduardo. "Las garantías constitucionales del proceso civil." In: *Estudios de derecho procesal civil* (edited by Eduardo Couture). Buenos Aires: Ediar, 1948, t. I.

Floridi, Luciano, Matthias Holweg, Mariarosaria Taddeo, Javier Amaya Silva, Jakob Mökander,and Yuni Wen. "*CapAI - A Procedure for Conducting Conformity Assessment of AI Systems in Line with the EU Artificial Intelligence Act*" (March 23, 2022). [Online] Available at: http://dx.doi.org/10.2139/ssrn.4064091. Accessed on 24 Aug. 2023.

Frazão, Ana. "Julgamentos Algorítmicos: A Necessidade de Assegurarmos as Preocupações Éticas e o Devido Processo Legal." In: *Tutela Jurídica do Corpo Eletrônico: Novos desafios ao direito digital* (edited by Cristiano Colombo, Wilson Engelmann and José Luiz de Moura Faleiros Júnior). Indaiatuba, SP: Editora Foco, 2022.

Frohlich, Afonso Vinício Kirschner, and Wilson Engelmann. Inteligência *Artificial e Decisão Judicial: Diálogo entre benefícios e riscos.* 1st. ed. Curitiba: Appris, 2020.

Gaio Júnior, Antônio Pereira, and Fábio Antônio Silva. "Direito, Processo e Inteligência Artificial. Diálogos Necessários ao Exercício da Jurisdição." *Revista Eletrônica de Direito Processual – REDP*. Rio de Janeiro. Ano 17. Volume 24. Número 1. Jan-Abr/2023. [Online] Available at: https://www.e-publicacoes.uerj.br/index.php/redp/article/view/72240. Accessed on 11 Jul. 2023.

Gursoy, Furkan, Ryan Kennedy, and Ioannis Kakadiaris. "*A Critical Assessment of the Algorithmic Accountability Act of 2022*" (March 3, 2022). [Online] Available at: http://dx.doi.org/10.2139/ssrn.4193199. Accessed on 24 Aug. 2023.

Lucon, Paulo Henrique dos Santos. "Processo Virtual, Transparência e Accountability." In: *Inteligência Artificial e Direito Processual: Os Impactos da Virada Tecnológica no Direito Processual* (edited by Dierle Nunes, Paulo Henrique dos Santos Lucon and Erik Navarro Wolkart) Salvador: Editora JusPodivm, 2020.

Mökander, Jakob, Prathm Juneja, David S. Watson, and Luciano Floridi. "The US Algorithmic Accountability Act of 2022 vs. The EU Artificial Intelligence Act: what can they learn from each other?" *Minds & Machines* 32, 751–758 (2022). [Online] Available at: https://doi.org/10.1007/s11023-022-09612-y. Accessed on 11 Jul. 2023.

Mostert, Frederick. "Digital Due Process": A need for online Justice. *Journal of Intellectual Property Law & Practice*, forthcoming. March 11, 2020. [Online] Available at: https://ssrn.com/abstract=3537058. Accessed on 11 Jul. 2023.

Passos, José Joaquim Calmon de. *O devido processo legal e o duplo grau de jurisdição*. São Paulo: Saraiva, 1981.

Ribeiro, Darci Guimarães. *O Novo Processo Civil Brasileiro: presente e futuro*. Londrina: Thoth, 2020.

Schwab, Klaus. *The Fourth Industrial Revolution.* Geneva, Switzerland: World Economic Forum, 2016.

Streck, Lenio Luiz. *O que é isto: decido conforme minha consciência?* Porto Alegre: Livraria do Advogado, 2013.

Suzor, Nicolas. "*Digital constitutionalism: Using the rule of law to evaluate the legitimacy of Governance by platforms*." [Online] Available at: https://journals.sagepub.com/doi/10.1177/2056305118787812. Accessed on 11 Jul. 2023.

Vale, Luís Manoel Borges do. "A Tomada de Decisão por Máquinas: A Proibição, no Direito, de Utilização de Algoritmos não Supervisionados." In: *Inteligência Artificial e Direito Processual: Os Impactos da Virada Tecnológica no Direito Processual* (edited by Dierle Nunes, Paulo Henrique dos Santos Lucon and Erik Navarro Wolkart). 2nd. ed. Salvador: Editora JusPodivm, 2021.

* * *

Alana Engelmann
Master's in Public Law, with a focus on Hermeneutics, Constitution, and the Realization of Rights, from the University of Vale do Rio dos Sinos (Unisinos), under the guidance of Prof. Dr. Darci Guimarães Ribeiro. Specialist in the New Brazilian Civil Procedure from the University of Vale do Rio dos Sinos (Unisinos). Researcher in the Research Group "Critical Theory of the Process: contemporary perspectives of Civil Procedure regarding Constitution, Culture, Democracy, Artificial Intelligence, and Power," coordinated by Prof. Dr. Darci Guimarães Ribeiro, affiliated with the Postgraduate Program in Law at Unisinos. Researcher in the Research Group "The Influences of Culture on Civil Procedure," coordinated by Prof. Dr. Marco Felix Jobim, affiliated with the Postgraduate Program in Law at the Pontifical Catholic University of Rio Grande do Sul (PUCRS). Researcher in the Research Group "Contemporary Civil Procedure," coordinated by Prof. Dr. Aldo Aranha de Castro, affiliated with the Federal University of Mato Grosso do Sul (UFMS). Researcher in the Law and Development Group, coordinated by Prof. Dr. Haide Maria Hupffer, affiliated with Feevale University. Subsection Councilor of Sapiranga at OAB/RS. President of the Special Commission on Civil Procedure Law of the Sapiranga Subsection of OAB/RS. Member of the Brazilian Institute of Procedural Law (IBDP) and the Brazilian Association "Elas no Processo" (ABEP). Lawyer at the Strassburger Advogadas Associadas office in Sapiranga-RS.
Email: alanagengelmann@hotmail.com
ORCID iD: https://orcid.org/0000-0002-3575-4000

10.59224/bjlti.v1i2.169-188
ISSN: 2965-1549