THE USE OF ARTIFICIAL INTELLIGENCE TO PRODUCE INFORMATION OR EVIDENCE IN THE INVESTIGATION OF BIDDING CRIMES

A PRODUÇÃO DE ELEMENTOS DE INFORMAÇÃO OU PROVA ATRAVÉS DA INTELIGÊNCIA ARTIFICIAL NA APURAÇÃO DE CRIMES LICITATÓRIOS

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Abstract: Currently, artificial intelligence has been implemented in various sectors of human life. Undoubtedly, in the current state of the art, it is absolutely impossible to uncouple human beings from machines, since both are inseparably linked, which is why the law must be adapted to modern reality, including within the scope of criminal law and criminal procedure. Inexorably, artificial intelligence has already shown very good results, due to its precision and time savings, in fact, there are striking examples where this technology has brought benefits, on the other hand, it must be explored with caution when in the field of criminal law, especially due to the its interference with the individual's *status libertatis*. The scope of this article is to analyze the use of artificial intelligence by bodies controlling bidding processes and public contracts, which share audit findings with criminal prosecution bodies, as well as to investigate whether the aforementioned technology violates the fundamental rights of those being investigated/accused. , and if so, whether there were safeguards so that, in particular, the right of defense can be effectively exercised. In the end, through the case study, we intend to demonstrate in practice some of the problems raised during the work.

Resumo: Contemporaneamente, a inteligência artificial vem sendo implementada em diversos setores da vida humana. Sem dúvida, no atual estado da arte, é absolutamente impossível desatrelar o ser humano das máquinas, visto que ambos estão indissociavelmente ligados, razão pela qual deve-se adaptar o direito à realidade moderna, inclusive no âmbito do direito penal e processual penal.

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Inexoravelmente a inteligência artificial já apresentou resultados muito bons, devido à sua precisão e economia de tempo. Aliás, há exemplos marcantes onde esta tecnologia trouxe benefícios, por outro lado deve ser explorada com cautela quando no campo do direito penal, mormente em razão da sua interferência no *status libertatis* do indivíduo. O presente artigo tem por escopo analisar o emprego da inteligência artificial pelos órgãos de controle de certames licitatórios e contratações públicas, que compartilham os achados de auditorias com os órgãos de persecução penal, bem como perquirir se a referida tecnologia vulnera direitos fundamentais de investigados / acusados, e caso, afirmativo, se existiram salvaguardas para que, especialmente, o direito de defesa possa ser efetivamente exercido. Ao final, através do estudo de caso, pretende-se demonstrar na prática alguns dos problemas levantados no decorrer do trabalho.

1. INTRODUCTION

Undoubtedly, artificial intelligence is one of the subjects currently studied its connection with law. Thus, this work aims to analyze how this sort of contemporary technology is applied to public administration processes controlled by government bodies, for instance, bidding processes and public hiring, which share those findings with criminal prosecution organizations.

In addition, this study will present how artificial intelligence can hinder investigated/accused individuals´ fundamental rights, thus, should it utterly occur, this article will show paths to tackle those issues, safeguarding those rights, due to this technology thrives respecting essential principles of human beings, highlighting citizen's right of defense.

In the long run, quite a few countries have been embracing this system, therefore this paper seeks to demonstrate the advantages and disadvantages that stem from artificial intelligence and verify if it ought to be still used by criminal law, then being an affirmative response, how could the society utilize this technology, also in the same time guarantee to people the fundamentals rights. Cutting to the chase, essential to inform all that Brazil has a paramount focus on this research due to its recent development.

Finally, through case analysis, the purpose is to demonstrate in practice some of the difficulties that have been addressed in the course of the work, due to it will provide a better comprehension of this theme.

2. A BRIEF OVERVIEW OF THE USE OF ARTIFICIAL INTELLIGENCE IN THE INVESTIGATION OF BIDDING CRIMES AND ITS IMPACT ON PROPERTY AND PERSONAL PRECAUTIONARY MEASURES

Several venues around the world are currently using the artificial intelligence of autonomous systems in public administrations, for instance, Atlanta for predicting building fires, Hampton for predicting the risk of flooding, and Chicago and Las Vegas for monitoring sites. Moreover, other public administrations have used this up-to-date technique to identify social security fraud, warn about conflicts of interest, prevent corruption in public bidding processes, and contract processes, as well as to give automatic warnings based on the behavior of public staff.[1]

Needless to say, the use of artificial intelligence in internal and external control activities, such as the Comptroller's Office and the Court of Auditors, in bidding processes and public contracts is also a reality in Brazil.

Brazilian control agencies, in their oversight of public tenders and contracts, are using - often silently and without any transparency - robots (software) which, through artificial intelligence, can conduct agile and autonomous analyses and cross-checks of a vast amount of data, analysis, and crossing of a vast amount of data and information - Big Data - made available in public agency databases related to tenders and other public channels (currently robots analyze around 77 databases[2]), which used to be handled manually by auditors, often spending an unreasonable amount of time on situations that require urgency.

By way of example, the UNITED STATES COURT OF AUDITORS[3], some Federation Courts of Auditors[4], and the UNITED STATES CONTROLLER GENERAL have used artificial intelligence to assist in the inspection of purchases related to the SARS-CoV-19

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[1] CASTELLANO, Pere Simón. *Inteligencia artificial y valoración de la prueba: las garantias jurídico-constitucionales del órgano de control.* THÊMIS-Revista de Derecho 79. enero-junio 2021. pp. 283-297. e-ISSN: 2410-9592. p. 285.

[2] GOMES, Heltin Simões. *Como as robôs Alice, Sofia e Monica ajudam o TCU a caçar irregularidades em licitações*. 18.03.2018. *available on*: https://g1.globo.com/economia/tecnologia/noticia/como-as-robos-alice-sofia-e-monica-ajudam-o-tcu-a-cacar-irregularidades-em-licitacoes.ghtml . Accessed on April, 06, 2022.

[3] BRAZIL. SECOM TCU. *Inteligência Artificial auxilia fiscalização do TCU sobre compras relacionadas à Covid-19*. 17.08.2020. *Available on*: https://portal.tcu.gov.br/imprensa/noticias/inteligencia-artificial-auxilia-fiscalizacao-do-tcu-sobre-compras-relacionadas-a-covid-19.htm . Accessed on April, 06, 2022.

[4] BRAZIL. TCESP. *Tribunal de Contas usará robô para encontrar irregularidades em editais de licitação*. *Available on*: https://www.tce.sp.gov.br/6524-tribunal-contas-usara-robo-para-encontrar-irregularidades-editais-licitacao . Accessed on September, 09, 2023.

pandemic and other bidding procedures[5], such as the ALICE - ANALYZER OF BIDS, CONTRACTS AND PUBLIC NOTICES robot (which vanishes government purchases for irregularities in an automated and intelligent way[6]), ADELE - DISPUTE ANALYSIS IN ELECTRONIC BIDDING (which analyzes the chronology of bids and information on participating companies, and also identifies whether more than one bidder has used the same IP - Internet Protocol), SOFIA - SYSTEM OF GUIDANCE ON FACTS AND INDICTMENTS FOR THE AUDITOR (which reviews audit reports and instructions in general), among an array of others.

Cutting to the chase, technological tools, with intelligent algorithms, seek to make external control more efficient, rational, and, above all, more prompt, thus quickly identifying overpricing, fraud, fractioning, or splitting the contractual object in order to utilize a bidding modality that is below the one stipulated by law for the whole expense or to contract directly, and then some.[7]

In the words of the Public Prosecutor of Pernambuco, Paulo Neto, if the authorities were to perform such inspection procedures "by hand", "they would certainly go crazy", and this is the "future of the fight against corruption".[8]

Despite achieving the desired efficiency on the part of the control bodies, the technical inspection reports drawn up by the bid audits based on the information collected by software are shared with the state bodies involved in criminal prosecution (the Judicial Police and the Public Prosecutor's Office)[9], serving as sufficient factual and probative support for the

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[5] "Laís, Lídia, Ícaro, Raquel and Rianna. The five names could well be new employees of the State Court of Auditors (TCE-RS). In fact, they are not servers per se, but rather, as they are called, 'robots'. Using artificial intelligence, these five digital tools have improved audit processes, anticipating and pointing out possible errors in hiring and public administration processes in Rio Grande do Sul" (XAVIER, Mauren. *"Robôs" elevam controle e otimizam o gasto público.* 15.10.2021.Available on: *https://www.correiodopovo.com.br/not%C3%ADcias/pol%C3%ADtica/rob%C3%B4s-elevam-controle-e-otimizam-o-gasto-p%C3%BAblico-1.707053*. Accessed on April 06, 2022).

[6] GROSSMANN, Luís Osvaldo. *Comprasnet vai integrar robô da CGU que varre licitações*. 05.08.2021. Available on: https://www.convergenciadigital.com.br/Governo/Compras-governamentais/Comprasnet-vai-integrar-robo-da-CGU-que-varre-licitacoes-57736.html?UserActiveTemplate=mobile%2Csite . Accessed on April 06, 2022.

[7] COSTA, Marcos Bemquerer; BASTOS, Patrícia Reis Leitão. Alice, Monica, Adele, Sofia, Carina e Ágata: *o uso da inteligência artificial pelo Tribunal de Contas da União. Controle Externo*: Revista do Tribunal de Contas do Estado de Goiás, Belo Horizonte, year 2, n. 3, p. 11-34, jan./jun. 2020. p. 32.

[8] GOMES, Heltin Simões. *Op. cit.*

[9] The Federal Audit Court has "sought to honor the formation and greater effectiveness of the control network, through the joint action of the technical unit with other state inspection and investigation bodies, such as the Federal Police and the Federal Public Ministry, among others" (BRAZIL. Tribunal de Contas da União. TC 027.879/2017-8. Available on:

continuous judicial decree of special sequestration of the assets of indicted persons, their companies and kin members[10] for alleged bidding crimes that would have resulted in damage to the Public Treasury (Decree-Law 3. 240, May 8, 1941)[11], as well as temporary and preventive arrests or precautionary measures other than imprisonment (precautionary suspension of the investigated party from participating in public tenders, prohibition of contact between the investigated parties, and the like.), neutralizing defense activity, especially due to the difficulty of contesting the so-called "technical data", generating a kind of "algorithmism" (authoritarianism caused by algorithms) and revealing a colossal "disparity of arms", since the defense, in the vast majority of cases, does not have the technology to challenge such information at the same speed as the machine, nor the technical capacity to audit the artificial intelligence models.

As wholeheartedly says Eduardo Saad-Dinize "*el autoritarismo em Brasil, lejos de ser um capitulo superado de nuestra historia, se repone em nuevas dinâmicas autoritarias*" (English translation: "Authoritarianism in Brazil, far from being an outdated chapter in our history, is re-establishing itself in new authoritarian dynamics")[12]

Thus, this contemporary dynamic of authoritarianism can be seen in the new technological tools.

As is well known, precautionary measures result in a lowering of the standard of evidence required for a condemnatory judgment, with indications, weaker proofs of less reliability, and credibility being enough[13]. In other words, there is no need to go beyond the standard of "beyond all reasonable doubt".

Needless to say, it is true that this downgrading becomes worrying from the perspective of the investigated individuals' fundamental rights when such clues are obtained by information

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file:///Users/marcelorodriguesdasilvatorricelli/Downloads/Despacho%20ministrosubstituto%20Andre%20Luis%20de%20Carvalho.pdf. Accessed on April 10, 2022.

[10] MALAN, Diogo Rudge. *Advocacia Criminal contemporânea*. Rio de Janeiro: Lumen Juris. 2022. p. 81.

[11] The special asset seizure precautionary measure of Decree-Law 3. 240, of May 8, 1941, which can be applied to any assets (including lawful assets) of people indicted for crimes that have caused damage to the Public Treasury (therefore, a precautionary measure that requires a different standard of proof from the sequestration provided for in the Code of Criminal Procedure), has become an uncompromising priority of national criminal policy in the last decade, which has been increased by the technological alliance with the "state asset strategy against crime", in which the loss of assets in order to repair the damage to the treasury is one of its pillars.

[12] SAAD-DINIZ, Eduardo. *Tenebrosas transações: la complicidad de las redes empresariales com dinâmicas autoritárias*. *In:* PALERMO, Pablo Galain; SAAD-DINIZ, Eduardo. Responsabilidad empresarial, derechos humanos y la agenda del derecho penal. corporativo.Valencia: Tirant lo blanch. 202. p. 280.

[13] LOPES JUNIOR, Aury. *Direito processual penal*. 19ª ed. São Paulo: Saraiva Jur. 2022. p. 415

technology systems, especially when collected through the use of autonomous artificial intelligence systems, whose algorithms are prone to failure when the database of a given system has not yet been fed with information concerning a new emerging reality[14], leading to a concerning overestimation of the existence of patterns that induce the judicial body to a " near-irreversible " conviction of the need for precautionary measures.

The limiting belief of a large number of judges that the conclusions drawn by the control organs are technically irrefutable gives rise to the overestimation of algorithmic standards, calling into question the principle of the presumption of innocence, set out in Article 5, LVII of the Federal Constitution ("no one will be considered guilty until a definitive criminal sentence has been pronounced").

Reluctantly, the opacity of algorithms in the handling of Big Data and the lack of transparency surrounding their use have made it tough for the defense to refute the information produced by the control institutions. In spite of the fact that human decisions can be just as opaque or inexplicable as algorithmic decisions, it is certain that in the judicial context, this thinking does not stand up in light of the judicial decision is legitimized by its reasoning, and not by the decision-making process that led the judge to reach a certain result, In short, human decisions, notwithstanding all the cognitive tendencies they may possess, there is a result to be shown, which must meet standards of acceptability, rationality and intelligibility, factors that an algorithmic decision would never meet on its own without human input.

In addition, media penal populism has boosted the rhetoric of moralizing political and business customs, culminating in increased penalties for bidding crimes (as occurred with the advent of the recent Law 14.133/2021), as well as pushing for the use of algorithms in state control activity concerning these crimes.

Given this panorama, it is crucial to balance the asymmetries pointed out, to guarantee the fundamental rights of the investigated/accused, especially the right to defense (adversarial and broad defense), while ensuring innovation based on legal frameworks that promote trust in technology in investigative procedures.

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[14] On the subject, Luís Greco believes that "the fallibility of algorithms is almost commonplace in the literature; not to mention vulnerabilities, security problems. Algorithms tend to overestimate the existence of patterns [...]. Even more serious are the feedback loops that can arise in various sectors: algorithms function as 'self-fulfilling prophecies' that set in motion a toxic cycle". (GRECO, Luís. *The power to judge without the responsibility of the judge: the legal impossibility of the robot judge.* São Paulo: Marcial Pons. 2020. p. 28)

Consequently, as is said by Sónia Fidalgo, "não podemos (nem queremos) recusar a intervenção das realizações tecnológicas no processo penal – o processo penal está inevitavelmente obrigado a modernizar-se, sob pena de, na sua imobilidade, se tornar obsoleto"(English translation "we cannot (nor do we want to) deny the intervention of technological developments in criminal procedure - criminal procedure is inevitably obliged to modernize, 'otherwise, in its immobility, it will become obsolete)[15].

3. ARTIFICIAL INTELLIGENCE AS A WAY OF PRODUCING ELECTRONIC PROOF. THE SYSTEM OF FREEDOM OF EVIDENCE AND THE PRINCIPLE OF PROPORTIONALITY

Even though "digital evidence" and "electronic evidence" are generally used synonymously, electronic evidence indeed has a broader definition than digital evidence since it covers not only evidence obtained through data in digital format but also that obtained through data in analog format (e.g. printed photographs, physical documents, etc.). Digital evidence is that produced from data in digital format (in binary form), "which is manipulated, stored or communicated through any device, computer or computer system, or transmitted through a communication system"[16]

From the source of knowledge produced by the use of artificial intelligence comes automated techniques for producing or obtaining evidence, i.e. the collection and analysis procedure is not conducted by a human, but by an algorithm - there is human intervention at the time of the creation of the algorithm, but not at the time of the production of the output by said technology.

Furthermore, artificial intelligence systems introduce into criminal prosecution means of proof whose reliability depends entirely on the accuracy of the technological resources used.

Undoubtedly, electronic evidence and expert evidence are indeed very similar, as both require explanations as a rule. By the by, expert evidence is when technical, scientific, and artistic knowledge is required. As for, electronic evidence, and technical knowledge in digital

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[15] FIDALGO, Sónia. *A utilização de inteligência artificial no âmbito da prova digital – direitos fundamentais (ainda mais) em perigo*. *In:* RODRIGUES, Anabela Miranda (Coord.). A inteligência artificial no direito penal. Coimbra: Almedina. 2020. Ebook.

[16] MASON, Stephen. *Rethinking Concepts in Virtual Evidence*. The Icfai Journal of Cyber Law, vol. 7, no 1, 2008, p. 48-54

forensic science is generally required, which can be used to produce a value judgment concerning the probative material collected.

In fact, the machine's artificial intelligence in investigative activities often surpasses human capabilities. Hence, even if the expert or the programmers themselves are given the necessary time to question and evaluate the information resulting from the use of the artificial intelligence system, they will not have the ability to understand and explain the paths adopted by the technological system to reach a certain conclusion, to comprehend and justify all the details to reach a certain result, or whether it is right, which is why they talk about the black box of artificial intelligence. Albeit this is apart from the fact that the companies themselves, developers of artificial intelligence, for reasons of commercial and industrial secrecy regarding the operation of these systems, do not make available information related to the decision-making process that the machines take.

The Brazilian legal system was not designed to obtain evidence by using artificial intelligence, nonetheless, is wholly geared towards human intervention in the process (or even just part of the process) of producing proof.[17]

Although Brazil has a system of freedom of evidence, whereby "the production of evidence not regulated by law is admitted"[18], it is not appropriate for there to be total freedom in the admissibility of any means of obtaining such proof, given that the discovery of facts must respect the right to defense and the dignity of the human being.[19]

Due to the lack of rules regulating the use of artificial intelligence in criminal prosecution, the principle of proportionality in its dual aspect (prohibition of excess and prohibition of deficient protection) must guide the use of artificial intelligence in investigative activity and criminal procedures, mainly in order to ensure the fundamental rights and guarantees inherent to the defense of the investigated/accused (e.g.: contradictory, ample defense, the presumption of innocence, and then some) and to make the investigations performed by the State more efficiently.

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[17] *Idem.*
[18] BADARÓ, Gustavo Henrique. *Processo Penal*. 9ª ed. São Paulo: RT. 2021. p. 440.
[19] MIRABETTE, Julio Fabrini. *Processo penal*. 16ª ed. São Paulo: Atlas, 2004, p. 278

3.1 SAFEGUARDS FOR THE RIGHT OF DEFENSE: CONTRIBUTIONS FROM THE PRELIMINARY PROJECTS FOR THE ARTIFICIAL INTELLIGENCE FRAMEWORK AND "LGPD PENAL"

Taking into account the opacity of the implementation of artificial intelligence in the dynamics of evidence, it is important to seek safeguards for the right of defense of those being investigated when artificial intelligence is utilized.

A. THE SUBSIDIARITY OF THE USE OF ARTIFICIAL INTELLIGENCE IN STATE INVESTIGATIVE WORK

In light of the potential damage to the fundamental rights of the person being investigated through the use of artificial intelligence techniques, the principle of subsidiarity must be ensured as an "ultima ratio".

For this reason, it would be extremely important to approve the wording of Article 6 of the pre-project of the Brazilian Framework for Artificial Intelligence (Law 21-A of 2020)[20], given that it indicates subsidiary intervention as a guideline to be observed by the Public Authorities, thus that "specific rules should be developed for the uses and systems of artificial intelligence merely when absolutely fundamental to guaranteeing compliance with the provisions of the legislation in force".

Likewise, because of the subsidiary nature of the measure in the criminal sphere, it would be advantageous to approval Article 24 of the Draft "Criminal LGPD" (Draft Data Protection Law for Public Security and Criminal Prosecution)[21], for good measure, Article 24 states that decisions based on the automated processing of data that pose a high risk to the fundamental rights of the data subject or that may lead to coercive or restrictive measures must be preceded by authorization from the National Council of Justice (CNJ) and authorized by law, which establishes adequate guarantees for the rights and freedoms of the data subject. This means that only in restrictive cases provided for by law and properly authorized by the CNJ

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[20] BRAZIL. CONGRESSO. Câmara dos Deputados. Redação Final – Projeto de Lei n. 21-A de 2020. Available on: < https://www.camara.leg.br/proposicoesWeb/prop_mostrarintegra?codteor=2129459&filename=REDACAO+FINAL+-+PL+21/2020 > . Accessed on April 11, 2022

[21] COMMITTEE OF JURISTS LEADED BY NEFI CORDEIRO (STJ). Anteprojeto de Lei de Proteção de Dados para Segurança Pública e Persecução Penal. Available on https://static.poder360.com.br/2020/11/DADOS-Anteprojeto-comissao-protecao-dados-seguranca-persecucao-FINAL.pdf . Accessed: 20.09.2023.

(reinforcing the subsidiary nature of the measure) would it be possible to use artificial intelligence in state prosecutorial work.

B. THE DUTY TO INFORM THE INVESTIGATED/ACCUSED OF THE USE OF ALGORITHMS IN INVESTIGATIVE ACTIVITIES

It is no wonder that the production of evidence through artificial intelligence makes the investigated subject even more vulnerable, which is why there is a need to give them information about the use of algorithms then that they can seek a more protective legal regime that effectively ensures their fundamental rights and guarantees.

The preliminary proposal for the LGPD establishes this duty of state information in Article 23, paragraph 3, which states: "The data subject will be notified of the use of automated decisions".

Heading in the same direction, Bill 21-A of 2020 provides for the principle of transparency in Article 5, conceiving "the right of people to be informed in a clear, accessible and precise manner about the use of artificial intelligence". In addition, the sole paragraph of Article 7 of the same bill establishes that: "the Federal Public Power will promote strategic management and guidelines regarding the transparent and ethical use of artificial intelligence systems in the public sector, in harmony with the strategic public policies for the sector".

C. THE RESPECT FOR THE RIGHT TO AN AD CONTRADICTORY PROCEDURE AND AMPLE DEFENSE

With the aim of the right of defense to be guaranteed, the investigated/accused must be given the chance to effectively counter the evidence, guaranteeing that the adversarial process is performed less expensively and in reduced time, since certain situations require that counter-evidence be manufactured quickly to undo a situation of injustice, such as the granting of a patrimonial precaution.

The means of proof adopted can have a considerable impact on the investigated/accused person's exercise of the right to the contradictory and ample defense fundamentals principles. As we have seen, the elements of information or evidence obtained by machine learning techniques can make it difficult to oppose this automatized evidence.

In all honesty, the reliability of evidence obtained through algorithms cannot be contradicted by traditional methods. In these cases, contradictory evidence is only possible if there is at least access to technical information. Thus, the artificial intelligence systems used to

obtain digital evidence must be explainable and transparent: it must be ensured that the results generated by the artificial intelligence algorithms are understandable to those involved in the criminal proceedings (especially the investigated person) and there must still be transparency concerning the basic data and how the system arrives at a given conclusion. In other terms, tools must be created to allow the defendant to contradict the evidence, namely by providing open access to the source code, creating mechanisms to certify the systems as well as explaining the system in clear language, indicating, for example, the types of tools used.[22]

Machine learning techniques are still vulnerable, and the evidence obtained through these techniques remains fragile. First of all, many artificial intelligence systems rely on huge amounts of data to work properly. Often the data used by the system can be biased, i.e., if it is not sufficiently balanced or inclusive, the artificial intelligence system based on this data will not be able to generalize correctly and may make wrong decisions. In addition, the artificial intelligence systems used by digital forensics are also vulnerable to attacks by artificial intelligence, namely through contradictory inputs and data poisoning. All of which justifies an understanding of the behavior of the artificial intelligence system as a condition for an effective right of defense.

In most cases, the investigated/accused individual (and their defender) will not have the technical knowledge to contradict the evidence, but they will be able to request the production of expert evidence and hire a technical assistant.

In any scenario, only the use of explainable and transparent artificial intelligence systems will make it possible to achieve a balance between the interests of the investigation and the protection of the investigated/accused person's right to defense.

Properly exercising the adversarial process requires that the systems responsible for automated decisions be capable of being audited, non-discriminatory, also verifiable in terms of their precision and degree of accuracy and that the competent authority provide clear and adequate information on the criteria and procedures used for the automated decision, as provided for in Article 25, caput and § 1 of the Draft "LGPD Penal".

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[22] FIDALGO, Sónia. *A utilização de inteligência artificial no âmbito da prova digital – direitos fundamentais (ainda mais) em perigo*. *In:* RODRIGUES, Anabela Miranda (Coord.). A inteligência artificial no direito penal. Coimbra: Almedina. 2020.

D. THE PROHIBITION OF THE ADOPTION OF ANY COERCIVE MEASURE OR RESTRICTION OF RIGHTS SOLELY BASED ON AN AUTOMATIZED DECISION

Due to preserve the fundamental rights and guarantees of defendants and investigated individuals, it is vital to ensure that personal, in rem, prison, and law-restricting precautionary measures are not handed down exclusively or predominantly based on automated decisions or evaluations, as provided for in §4 of Article 25 of the Draft "Criminal LGPD".

E. THE DOUBLE PRESUMPTION OF INNOCENCE

Indeed, according to Spencer Toth Sydow, the computerized criminal process requires a new structuring of the principles of criminal law, amongst which the principle of the presumption of innocence, which must be strengthened in the face of the vulnerability caused by the opaque methods of investigation dictated by artificial intelligence.[23]

4. CASE STUDY OF THE APPLICATION OF ARTIFICIAL INTELLIGENCE IN THE PANDEMIC OF COVID-19 PANDEMIC, PRECAUTIONARY MEASURES BASED ON INFORMATION FROM AN AUDIT CARRIED OUT USING ARTIFICIAL INTELLIGENCE

In order to better understand the problem of this work, it is paramount to perform a case study, which, due to the confidentiality of the judicial process in question, has been given fictitious names to the parties.

Based on information extracted from the cross-referencing of more than several pieces of government data through artificial intelligence (a technological investigative mechanism that was not informed to the investigated parties), the Court of Auditors and the Comptroller General of the Union prepared technical reports indicating that the company Delta Pharmacy LTDA, in the midst of the Covid-19 pandemic, had fraudulently overpriced the sale of medicines and personal protective equipment in a waiver of a bidding procedure (direct contracting) in Municipality X. The alleged fraud would have occurred because of the non-observance of legal formalities of the waiver procedure by the Health Department of Municipality X, the absence

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[23] SIDOW, Spencer Toth. *Curso de Direito Penal informático- patês geral e especial*. 2ª ed. Salvador: Juspodivm. 2021. p. 111.

of an exhaustive search for potential suppliers, inconsistencies of dates and inconsistencies in the chronological sequence of the acts of the administrative processes (indicating a posteriori assembly of the waiver process), factors that would indicate the possibility of arbitrary choice and directing the purchase in favor of Delta Pharmacy LTDA. These reports were shared with the Federal Police Delegate, who, taking the view that there was strong evidence of bidding crimes, filed a court order for the sequestration (based on Decree-Law 3.240 of May 8, 1941) of the sum of R$ 3 million reais from the company, its managing partner Clodoaldo and three (3) public officials involved - amount corresponding to the overall price of the contract. The Federal Public Prosecutor's Office gave a favorable opinion on the request for sequestration, stating that society was dissatisfied with such corruption, that the media had even published several reports about it, and that the judiciary could not be complacent about such serious crimes. Given this, the competent court ordered the sequestration of the assets of all those being investigated, on the grounds that the information provided by the technical bodies was sufficient to grant the precautionary asset measure.

Thereby, Clodoaldo, managing partner of the company Dela Pharmacy LTDA, decided to contact his attorney to clarify that during the pandemic there was a shortage of some medicines as well as personal protective equipment, which led to a rise in prices, and that the databases used in the aforementioned technical reports were completely out of date. Moreover, there were no suppliers of these products at the time, which is probably why Municipality X did not research prices widely.

According to LUIZ HENRIQUE LIMA (Substitute Councillor with the COURT OF AUDITORS OF THE STATE OF MATO GROSSO - TCE-MT) in the book entitled "The Challenges of External Control in the Face of the COVID-19 Pandemic: Studies by Ministers and Substitute Councillors of the Courts of Auditors", which deals with the need to define fair criteria for determining overpricing during the Sars-Cov-19 pandemic. Thus, says the author:

> A major challenge concerns the prices paid for equipment, medicines and services. Over the last few months, there have been significant fluctuations in the prices charged for different products. In part, this can be attributed to the natural phenomenon of an economic market reacting to a public calamity, in which there are sudden and drastic changes in the demand for certain goods and services. In part, this can also be explained by the intervention of speculators. Generally speaking, in times of normality, three factors must be considered when analyzing a price paid by the Public Administration, for the purpose of characterizing overpricing: (a) The time at which the acquisition is made; (b) The quantity of goods and services that are the subject of the contract; and (c) The logistical constraints that affect the delivery of the good or service for which it was contracted to the contractor. Thus, even disregarding an

> emergency situation, it is not uncommon for the same medicine or input to vary significantly in price over a few weeks, according to the volume purchased, or according to the logistical conditions of its distribution. All these variables are maximized at a time of health calamity. Sharp fluctuations in prices can occur from one day to the next, literally. The intervention of large buyers in the international market can affect the supply of goods purchased and paid for. In addition, managers are pressured by public opinion, which does not accept that sick people cannot receive care due to a lack of beds, equipment, or health professionals. These circumstances highlight the need for great caution on the part of those responsible for procurement. [...] Similarly, the control bodies must act with caution. Certainly, the pandemic provides opportunities for overpriced contracts, but the desire to sanction those responsible for irregularities cannot override the need to use fair criteria to characterize possible damage to the treasury, with methodological rigor and awareness of the concrete difficulties faced by managers when making decisions.[24]

Some conclusions can be drawn from the above problem: (1st) artificial intelligence can disregard some factors (such as a pandemic), leading to a misinterpretation of a certain reality; (2nd) there was no transparency regarding the use of artificial intelligence in the procedure, further violating the fundamental rights of the investigated, especially the adversarial process and the broad defense; (3rd) there is an evident breach of the parity of arms between the State and the investigated, who needed to do artisanal defensive work quickly to combat results derived from elements of information extracted from a vast amount of data through robots.

5. CONCLUSION

In a nutshell, it was possible to conclude that the use of artificial intelligence guarantees efficiency in investigations, but violates the rights of defense of the investigated/accused. Nonetheless, it is theoretically feasible that effective adversarial proceedings could be ensured through the establishment of a legal system of safeguards.

Thus, it is no wonder that Artificial Intelligence came to stay in human beings' lives, also the community needs to learn how to utilize this technology in the right way, which means, using it carefully, in light to preserve fundamental principles that rule the current society. By the way, especially in criminal law, even more prudence is required because it is about an individual's freedom.

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[24] LIMA, Luiz Henrique; GODINHO, Heloísa Helena Antonacio M.; SARQUIS, Alexandre Manir Figueiredo (Coordenadores). *Os desafios do controle externo diante da pandemia de COVID-19: estudos de ministros e conselheiros substitutos dos Tribunais de Contas*. Belo Horizonte: Forum. 2021. p. 52-54

Moreover, many places have implemented this system to support crime investigations which showed quite a few awfully good results. Furthermore, several countries such as Brazil have kicked off to use this method to carry out investigations into crimes, mostly in the bidding process and the like. Despite the enthralling outcomes, Brazil still has some issues with putting this technology into practice in light of the lack of regulation.

Albeit, through in-depth studies, it will be able to identify a way to use Artificial Intelligence safely and with no worries, it would provide trust and promptness decisions.

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