



## ALGORITHMIC DISCRIMINATION, MANAGERIAL POWER, AND THE NECESSARY OBSERVANCE OF THE SOCIAL FUNCTION OF PROPERTY IN LABOR RELATIONS

## DISCRIMINAÇÃO ALGORÍTMICA, PODER DIRETIVO E A NECESSÁRIA OBSERVÂNCIA DA FUNÇÃO SOCIAL DA PROPRIEDADE NAS RELAÇÕES DE TRABALHO

## DISCRIMINACIÓN ALGORÍTMICA, PODER DIRECTIVO Y LA NECESARIA OBSERVANCIA DE LA FUNCIÓN SOCIAL DE LA PROPIEDAD EN LAS RELACIONES LABORALES

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### ABSTRACT

This article analyzes the legal limits of using algorithms in the exercise of managerial authority, focusing on the protection of workers' equality and dignity. The objective is to investigate how to reconcile technological innovation with fundamental rights, considering the social function of property in the digital context. The study's justification lies in the risks of algorithmic discrimination, which can intensify structural inequalities through opaque and difficult-to-audit technologies. To this end, the research uses a qualitative, descriptive, and bibliographic approach, based on relevant doctrine and legislation. The article concludes that the governance of technologies in the workplace demands a new social pact, grounded in transparency and the social function of property, to ensure that artificial intelligence serves the common good, respecting fundamental rights, and not merely business efficiency.

**Keywords:** Managerial Authority. Artificial Intelligence. Algorithmic Discrimination. Social Function of Property. Digital Governance.

### RESUMO

O presente artigo analisa os limites jurídicos do uso de algoritmos no exercício do poder diretivo patronal, com foco na proteção à igualdade e à dignidade dos trabalhadores. O objetivo é investigar como compatibilizar a inovação tecnológica com os direitos fundamentais, considerando a função social da propriedade no contexto digital. A justificativa do estudo reside nos riscos da discriminação algorítmica, que pode intensificar desigualdades estruturais por meio de tecnologias opacas e de difícil auditoria. Para tanto, a pesquisa utiliza o método qualitativo, com abordagem descritiva e bibliográfica, e baseia-se em doutrina e legislação pertinentes. O artigo conclui que a governança das tecnologias no trabalho demanda um novo pacto social, que se funda na transparência e na função social da propriedade, para assegurar que a inteligência artificial sirva ao bem comum, respeitando os direitos fundamentais, e não somente à eficiência empresarial.

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**Palavras-chave:** Poder Diretivo. Inteligência Artificial. Discriminação Algorítmica. Função Social da Propriedade. Governança Digital.

## RESUMEN

Este artículo analiza los límites legales del uso de algoritmos en el ejercicio del poder ejecutivo de los empleadores, centrándose en la protección de la igualdad y la dignidad de los trabajadores. El objetivo es investigar cómo conciliar la innovación tecnológica con los derechos fundamentales, considerando la función social de la propiedad en el contexto digital. El estudio se justifica por los riesgos de discriminación algorítmica, que puede intensificar las desigualdades estructurales mediante tecnologías opacas y difíciles de auditar. Para ello, la investigación utiliza un método cualitativo, con un enfoque descriptivo y bibliográfico, y se basa en la doctrina y la legislación pertinentes. El artículo concluye que la gobernanza de las tecnologías en el ámbito laboral exige un nuevo pacto social, basado en la transparencia y la función social de la propiedad, para garantizar que la inteligencia artificial sirva al bien común, respetando los derechos fundamentales y no solo la eficiencia empresarial.

**Palabras clave:** Poder Ejecutivo. Inteligencia Artificial. Discriminación Algorítmica. Función Social de la Propiedad. Gobernanza Digital.

## 1 INTRODUCTION

This study starts from the following research problem: how to reconcile the right to corporate property, exercised through directive power, with the guarantee of material equality, when decisions delegated to algorithms reproduce structural discrimination?

The justification for this research lies in the growing delegation of labor decisions to artificial intelligence systems, whose opaque and non-transparent tools intensify historical biases and create barriers to accountability for exclusionary practices. Thus, the relevance of the theme is manifested in the urgency of updating the labor law dogmatic to ensure the effectiveness of the fundamental rights provided for in the Federal Constitution.

The general objective of this work is to analyze the legal limits of the use of algorithms in the exercise of directive power, proposing ways to make it compatible with the protection of equality and dignity of workers. Specifically, the research seeks to: identify the risks of algorithmic management in the work cycle, in the recruitment, evaluation and dismissal phases; examine the employer's responsibility in the face of automated discrimination; and to discuss the social function of property in this technological context.

To achieve these objectives, the article was structured in sequential and dependent parts. Initially, the second chapter addresses the theoretical foundations of directive power and ownership, contextualizing them in the digital age to analyze the collision of principles that emerges with algorithmic discrimination. Then, the third chapter is dedicated to the critical analysis of emblematic cases, such as those of *Amazon* and *Xsolla*, to empirically demonstrate the risks and violations of rights under debate. Finally, the concluding section summarizes the arguments and proposes ways to make algorithmic management compatible with the protection of equality and dignity of workers.

The research adopts a qualitative methodology, with a descriptive and bibliographic approach, as it is the most appropriate for the analysis of doctrinal and normative sources. The plan to achieve the proposed objectives involves a theoretical-analytical approach, which starts from general premises about fundamental rights to examine the specific practices of algorithmic management, thus seeking to contribute to the development of a regulatory framework that harmonizes innovation and social justice in labor relations.

## 2 THE EMPLOYER'S DIRECTIVE POWER AND THE SOCIAL FUNCTION OF ALGORITHMIC PROPERTY

The growing incorporation of artificial intelligence systems in the world of work, especially in the field of people management, has been profoundly transforming labor relations. This is mainly due to the fact that algorithms today occupy decisive roles in processes such as resume screening, performance evaluation, and employee termination, replacing human criteria in critical phases of the work cycle.

While technological advancement promotes efficiency gains, it also exposes long-standing tensions between the economic freedom of the employer and the protection of workers' fundamental rights. In this scenario, it is necessary to analyze the exercise of corporate directive power in the light of the social function of property, with special attention to the need for legal mechanisms capable of curbing algorithmic discrimination in labor relations, because, instead of promoting neutrality, algorithms can incorporate and intensify historical prejudices, converting them into objective, automated decisions that are difficult to contest.

The emergence of algorithmic personnel management systems challenges labor dogmatics by shifting the decision-making *locus* from the human supervisor to the sphere of the code, a mutation that reinforces, albeit invisibly, the employer's directive power, requiring a constitutional rereading that harmonizes free enterprise and material equality, in order to guarantee the effectiveness of the fundamental labor rights provided for in article 7 of the Federal Constitution of 1988, as well as the principles of the social function of property (art. 5, XXIII) and social justice in the economic order (art. 170, III), as explained below.

### 2.1 THE RIGHT POWER AND ITS TECHNOLOGICAL REINTERPRETATION

Article 2 of the Consolidation of Labor Laws (CLT) recognizes the employer's power of organization, control and discipline over labor activity, based on the premise of the risk inherent in the conduct of the economic enterprise. However, in the contemporary context marked by the incorporation of digital technologies and algorithmic systems, this traditional prerogative has undergone profound resignifications.<sup>4</sup>

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<sup>4</sup> STUDART, Ana Paula Didier. *The algorithmic directive power*. São Paulo: LTr Editora, 2023.

As Miziara notes,<sup>5</sup> decisions regarding goal setting, work schedules, and sanctions are no longer made exclusively by human managers, but by *machine learning models* whose decision-making processes remain opaque and inaccessible to workers. Consequently, this transfer of the decision-making function to algorithms brings to light a new form of subordination of a different nature from the traditional one, characterized by "statistical subordination", as described by Rocha, Porto and Abaurre.<sup>6</sup>

In fact, in this type of subordination, workers are subjected to metrics that operate in an automated and hidden way, which replace explicit instructions or commands, imposing standards of evaluation and control without transparency.<sup>7</sup> There is no denying that this phenomenon reinforces the informational asymmetry between employers and workers, since the latter are unaware of the concrete criteria used to measure their performance and to make decisions that directly impact their working conditions.

As if that were not enough, the employer takes advantage of the apparent neutrality and objectivity of technology to legitimize its management practices, often under a "cover" of impartiality, which hinders the possibility of contesting and the effectiveness of workers' rights.<sup>8</sup> Such a scenario imposes innovative challenges to Labor Law, especially with regard to the need to ensure mechanisms that provide transparency, equity and protection against hidden discrimination in the use of algorithms.

Therefore, it is evident that it is imperative to recognize that the use of algorithms in labor management redefines the contours of directive power, requiring its rereading in the light of the constitutional principles of human dignity, equality, and the social function of property. The legitimization of automated decisions without transparency weakens the position of the worker and imposes on Labor Law the challenge of building effective

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5 MIZIARA, Raphael. Algorithmic discrimination and labor law: legal conditions and limits for the use of artificial intelligence in labor relations. 2024. 651 f. Thesis (Doctorate in Law) – Faculty of Law, University of São Paulo, São Paulo, 2024.

6 ROCHA, Cláudio Jannotti da; PORTO, Lorena Vasconcelos; ABAURRE, Helena Emerick. Algorithmic discrimination in digital work. *Journal of Human Rights and Social Development*, v. 1, p. 1-21, 2020. Available at: <https://seer.sis.puc-campinas.edu.br/direitoshumanos/article/view/5201>. Accessed on: 24 jul. 2025.

7 FINCATO, Denise Pires; WUNSCH, Guilherme. Algorithmic subordination: path to labor law at the technological crossroads?. *Journal of the Superior Labor Court*, 2020. Available at: [https://repositorio.pucrs.br/dspace/bitstream/10923/18331/2/Subordinao\\_algortmica\\_caminho\\_para\\_o\\_Direito\\_do\\_Trabalho\\_na\\_encruzilhada\\_tecnolgica.pdf](https://repositorio.pucrs.br/dspace/bitstream/10923/18331/2/Subordinao_algortmica_caminho_para_o_Direito_do_Trabalho_na_encruzilhada_tecnolgica.pdf). Accessed on: 04 jul. 2025.

8 ALVES, Amauri Cesar; NOGUEIRA, Roberto Henrique Pôrto; FIGUEIREDO, Camila Pita. Between autonomy and subordination in the teaching work mediated by algorithms. *Luso-Brazilian Legal Journal*, a. 9, n. 02, 45-63, 2023. Available at: [https://www.cidp.pt/revistas/rjlb/2023/2/2023\\_02\\_0045\\_0063.pdf](https://www.cidp.pt/revistas/rjlb/2023/2/2023_02_0045_0063.pdf). Accessed on: 14 jul. 2025.



safeguards, capable of guaranteeing control, access to information and protection against discrimination disguised under apparent technological neutrality.

## 2.2 THE OWNERSHIP OF THE MEANS OF PRODUCTION IN THE TWENTY-FIRST CENTURY: THE ALGORITHM

The classical conception of property, rooted in Roman-Germanic law and liberal theories, focused essentially on tangible goods, such as land, machinery, and physical capital, which could be the object of possession, enjoyment, and disposal. However, the transformation of productive structures throughout the twenty-first century, marked by increasing digitalization, has imposed a new reading of the concept of property, expanding it to intangible elements, especially what is conventionally called "digital assets".<sup>9</sup> In this context, the algorithm, as a set of rules, mathematical and logical models embedded in artificial intelligence software, emerges as strategic intellectual capital in the production process and in business management.<sup>10</sup>

The algorithm, unlike physical machinery, reproduces and automates decisions that directly affect the organization of work, productivity, and working conditions. It can be seen, therefore, that the algorithm assumes the main function in the mediation between capital and labor, directing task flows, organizing schedules, gauging performance and marking remuneration.<sup>11</sup> For Levi et al,<sup>12</sup> it materializes a new type of means of production that goes beyond traditional materiality, rising to the level of "immaterial property" indispensable to the functioning of modern companies.

As Sandro Marcos Godoy teaches<sup>13</sup>, the social function of property represents the overcoming of a primitive and individualistic concept, which transposes the right to property to the current reality. In this new conception, it is required that the holder, even if his right is preserved, does not exercise it selfishly, but allocates his resources to the general well-being of society, applying it to all means of production and not only to real estate.

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9 PEDRA, Adriano Sant'Ana; FREITAS, Rodrigo Cardoso. The social function of property as a fundamental duty. *Journal of the Faculty of Law of UFMG*, n. 66, p. 53-74, 2015. Available and: <http://www.direito.ufmg.br/revista/index.php/revista/article/view/1681>. Accessed on: 24 jul. 2025.

10 SARANDY, Flávio Marcos Silva. Thinking machines: Artificial Intelligence algorithms as discourse and algorithmic production in capitalism. 2025. 202 f. Thesis (Doctorate in Public Policy and Human Formation) - Center for Education and Humanities, State University of Rio de Janeiro, Rio de Janeiro, 2025.

11 STUDART, op. cit.

12 LEVI, Alberto et al. Artificial Intelligence in Labor Relations. São Paulo: Mizuno, 2022.

13 GODOY, Sandro Marcos. The environment and the socio-environmental function of the company. 2. ed. Londrina-PR: Thoth, 2025, p. 19.

From the Brazilian constitutional point of view, the social function of property, provided for in articles 5, item XXIII, and 170, item III, of the Federal Constitution of 1988, imposes that the right to property is not absolute, but conditioned to respect for collective well-being, social justice and the dignity of the human person.<sup>14</sup> Thus, digital assets, specifically algorithms, when regulating labour relations must also respect that legal mandate. The use of algorithms that produce negative externalities, such as the reproduction of structural discrimination, the precariousness of work or the compromise of the dignity of the worker, violates this constitutional provision, as it subverts the social function of property in favor of merely exacerbated economic interests.<sup>15</sup>

Similarly, the opacity inherent in AI systems, especially in their machine learning versions, can hide and perpetuate prejudices, becoming an instrument of exclusion and inequality, which leads the legal system to understand algorithmic property not as an untouchable private good,<sup>16</sup> but as a *locus* of social duties that imposes limits on their exploitation and an active role of the State in regulation and inspection to ensure the fulfillment of the social function.<sup>17</sup>

Therefore, algorithmic property, as an extension of the means of production, must be submitted to mechanisms that ensure transparency, responsibility and social control, ensuring that it does not become a tool of segregation or arbitrariness in the work environment.

In fact, the intangible nature of this property cannot serve as a justification for the absence of transparency. On the contrary, it requires regulatory innovation capable of ensuring that algorithms are developed, implemented, and monitored from the perspective of human rights and social justice, a challenge still under construction in contemporary labor law.<sup>18</sup>

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14 STONE; FREITAS, op. cit.

15 KAUFMAN, Dora; JUNQUEIRA, Tainá; REIS, Priscila. Negative externalities of artificial intelligence: conflicts between the limits of technique and human rights. *Journal of Fundamental Rights and Guarantees*, v. 24, n. 3, p. 43-71, 2023. Available at: <https://sisbib.emnuvens.com.br/direitosegarantias/article/view/2198>. Accessed on: 22 jul. 2025.

16 MATTIUZZO, Marcela; MENDES, Laura Schertel. Algorithmic discrimination: concept, legal basis and typology. *Journal of Public Law-Special Subject-Data Protection and Artificial Intelligence: Ethical and Regulatory Perspectives*, 2019.

17 VIANA, Guilherme Manoel de Lima; MACEDO, Caio Sperandio de. Artificial intelligence and algorithmic discrimination: an analysis of the Amazon case. *Law & IT*, v. 1, n. 19, p. 39-62, 2024. Available at: <https://direitoeti.com.br/direitoeti/article/view/212>. Accessed on: 21 jul. 2025.

18 LAMBERT, Soraya Galassi. Digital platforms and labor law. 2025. 173 f. Dissertation (Master's Degree in Law) - Universidade Nove de Julho, São Paulo, 2025.



In view of the above, the legal operator must recognize that the algorithm, as a means of production, serves as a new vector for the materialization of directive power, which cannot be exercised in disagreement with the social function of property protected by the constitution.

Therefore, recognizing the algorithm as a means of production in the twenty-first century implies admitting that its property, although immaterial, is subject to the same constitutional limits that govern traditional goods. Subjecting it to a social function means ensuring that its use in the management of work respects the principles of human dignity, equality and social justice. Thus, Labor Law is called upon to develop effective mechanisms of regulation, transparency, and accountability, ensuring that algorithmic property acts as an instrument of inclusion and not exclusion in the work environment.

### 2.3 THE COLLISION OF PRINCIPLES: FREE ENTERPRISE VS. FUNDAMENTAL RIGHTS

The principle of free enterprise, enshrined in article 170 of the Federal Constitution of 1988, is recognized as the basic foundation of the Brazilian economic order, guaranteeing autonomy to the employer to manage its business, take risks and seek profitability. However, this principle is not absolute and there is a clear constitutional interaction with the fundamental rights provided for in Article 5, including equality and the prohibition of discrimination.<sup>19</sup> Such a collision gains complex contours with the insertion of artificial intelligence in business management, especially when algorithms reinforce or crystallize stereotypes and prejudices related to gender, race, or other protected categories.<sup>20</sup>

Rodrigues and Sparemberger<sup>21</sup> point out that the economic order should not operate at any cost, and should respect the dignity of the human person and the social value of work, the latter being a foundation of the economic system (art. 170, VIII). Thus, when AI used in the business environment enhances structural inequalities, for example, excluding women, blacks, or social minorities from employment opportunities, a legal conflict arises that requires the prevalence of substantial equality over economic freedom. Therefore, the State has the

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19 RODRIGUES, Lilian; SPAREMBERGER, Raquel. Between data and rights: algorithmic discrimination from the perspective of the LGPD - General Data Protection Law. *Law and Contemporary Challenges: Between Justice and Social Transformation*. Chapter 13. 2023. Available at: <https://atenaeditora.com.br/index.php/catalogo/post/entre-dados-e-direitos-a-discriminacao-algoritmica-sob-a-perspectiva-da-lgpd-lei-geral-de-protectao-de-dados>. Accessed on: 24 jul. 2025.

20 LAMBERT, op. cit.

21 RODRIGUES; SPAREMBERGER, op. cit.



duty to intervene to rebalance the relationship, adopting regulatory measures that prevent algorithmic discrimination, guaranteeing the space for the realization of fundamental rights.<sup>22</sup>

Another relevant issue concerns industrial secrecy when it involves algorithms, often presented by companies as a barrier to transparency in the automated decision-making process. The General Data Protection Law (LGPD), in its article 20, ensures the right of the holder to review automated decisions and to obtain clear information about criteria used, overcoming the justification of industrial secrecy when fundamental rights are at stake.<sup>23</sup>

Thus, the legal system establishes an explicit limit to free enterprise with regard to the use of algorithms in labor management, imposing on employers the duty of transparency and access to qualified information to ensure protection against discrimination.

Therefore, the collision between free enterprise and fundamental rights must be resolved so that the State, when regulating and supervising algorithmic action, ensures that the social value of work and substantial equality are preserved. Such balance instructs state and judicial action, while also guiding the formulation of public policies and corporate norms aimed at the development and responsible use of technologies in the world of work.

## 2.4 ALGORITHMIC DISCRIMINATION: THE CODIFIED PREJUDICE

Algorithmic discrimination is a recent phenomenon in the history of humanity that consists of the use of computer systems to automate decisions, which, inadvertently or not, perpetuate historical stigmas and inequalities, replicating social prejudices on a technological and institutionalized scale.<sup>24</sup> Mattiuzzo and Mendes<sup>25</sup> carry out an important typification of this phenomenon, identifying four main matrices that give rise to discrimination operated by AI: statistical error resulting from poor quality or insufficiency of data; unfair generalization, when patterns identified for one group are extrapolated inappropriately to others; misuse of sensitive data such as race, gender, and sexual orientation; and unjustified imposition of limitations and restrictions in the sphere of workers' rights.

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22 CUSCIANO, Dalton Tria. Algorithmic discrimination in digital employment. *Journal of the Superior Labor Court*, v. 90, n. 3, p. 45-60, 2024. Available at: <https://revista.tst.jus.br/rtst/article/view/91>. Accessed on: 20 jul. 2025.

23 RODRIGUES; SPAREMBERGER, op. cit.

24 SAINZ, Nilton Garcia; GABARDO, Emerson; ONGARATTO, Natália. Algorithmic discrimination in Brazil: an analysis of legal research and its perspectives for understanding the phenomenon. *Public Law*, v. 21, n. 110, 2024. Available at: <https://www.portaldeperiodicos.idp.edu.br/direitopublico/article/view/7295>. Accessed on: 19 jul. 2025.

25 MATTIUZZO; MENDES, op. cit.



Therefore, this typology helps to understand the multiple ways in which prejudice can be "encoded" in the functioning of artificial intelligence. Sainz, Gabardo, and Ongaratto<sup>26</sup> demonstrate that, in Brazil, these biases have a greater impact on historically vulnerable groups, such as women and black people, evidencing an institutionalized reproduction of prejudices that aggravates social and economic inequalities, legitimizing stigmas through automated decisions that have the appearance of neutrality and objectivity.

However, the confrontation of this phenomenon faces a serious obstacle in the absence of prior audits, which would lead to the identification of discrimination before the application of algorithmic systems in the work context. In fact, the lack of prior control reflects a violation of the duty of objective good faith in labor relations and undermines the social function of algorithmic property, since the means of production (including algorithms) cannot be used to perpetrate injustices or illegitimate exclusions.<sup>27</sup>

It is clear, in view of the foregoing, that algorithmic discrimination is a concrete threat to the right to equality and dignity of the worker, requiring integrated mechanisms of regulation, auditing, transparency and accountability, which can correct distortions and ensure effective protection against biases embedded in automated decisions in the workplace.

## 2.5 BRIEF CONSIDERATIONS ON THE ECONOMIC INTERACTION BETWEEN PLATFORM AND USERS

The current scenario of platform work represents a new paradigm in labour relations, where algorithms coordinate, but also, to a certain extent, replace the traditional exercise of directive power. Cusciano<sup>28</sup> points out that, on the platforms, the algorithm plays a functional tripod: it hires, manages, and remunerates workers, who become "quasi-employees", subject to automated and opaque rules and evaluations.

In this context, the platformized structure of labor imposes a profound informational asymmetry. The worker, often a self-employed provider, does not have access to the exact criteria that determine his performance, rating, incentive or even his suspension. The absence of transparency about these parameters makes it impossible to challenge adverse

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26 SAINZ; BOASTING; ONGARATTO, op. cit.

27 GONÇALVES, Rafaela Vilela. Discrimination in artificial intelligence algorithms: a study of the LGPD as a mechanism to control discriminatory biases. UNIFENAS Scientific Journal, v. 6, n. 8, 2024. Available at: <https://revistas.unifenas.br/index.php/revistaunifenas/article/view/1215>. Accessed on: 23 jul. 2025.

28 CUSCIANO, op. cit.

decisions and makes it impossible to effectively defend rights, configuring an unequal relationship, in which the algorithm serves as a tool for disproportionate economic control.<sup>29</sup>

As if that were not enough, this dynamic transforms the platform's informational capital into an instrument of monopoly power, which restricts or favors access to the labor market in an arbitrary and discretionary way, without offering the user-driver, delivery person or taxpayer equitable conditions to compete or negotiate.<sup>30</sup> Such a model compromises the principles of free competition and the decent offer of work, and reinforces the need for regulatory intervention that seeks to rebalance the relationship, imposing obligations of transparency, right of review and mechanisms of collective participation.<sup>31</sup>

Thus, this new role of algorithms as "invisible managers" in digital labor platforms highlights a critical point for Labor Law today, which must reconfigure itself to keep up with these transformations, offering legal guarantees appropriate to the new reality, ensuring the social function of algorithmic property and the protection of the fundamental rights of workers and collaborators in these environments.<sup>32</sup>

In this way, the economic interaction between digital platforms and their users, mediated by opaque algorithms, evidences a reconfiguration of directive power that weakens rights and widens inequalities. Therefore, it is essential that Labor Law advances in the construction of a regulatory framework that imposes transparency, social control, and effective protection on workers, ensuring that algorithmic logic meets the social function of property and human dignity in the digital environment.

### 3 CRITICAL ANALYSIS OF EMBLEMATIC CASES

In recent years, with the platformization of work and the greater use of emerging technologies in other areas, algorithmic discrimination has gained evidence, mainly because some emblematic cases have shown, including in the media, the harm of this practice, as is now exposed.

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29 ALMEIDA, Juan de Assis et al. The rights of transparency and information in the algorithmic management of platformized transport work: an analysis of Bill 12/2024 from the perspective of accountability. e-Facitec Magazine, v. 15, n. 01, p. 10-35, 2024. Available at: <https://estacio.periodicoscientificos.com.br/index.php/e-revistafacitec/article/view/3028>. Accessed on: 26 jul. 2025.

30 MORAES, Camila Miranda de; ALENCAR, Naira Pinheiro Rabelo de; GUERRA, Beatriz Moraes. Discrimination against women at work on digital platforms. Journal of the Labor Court of the 2nd Region, v. 16, n. 31, 2024. Available at: <https://basis.trt2.jus.br/handle/123456789/16331>. Accessed on: 21 jul. 2025.

31 CUSCIANO, op. cit.

32 ROCK; HARBOR; ABAURRE, op. cit.



### 3.1 THE AMAZON CASE

In 2018, a *Reuters report* pointed out that Amazon's curriculum screening engine penalized terms associated with the female universe, such as *women's rugby team* or diplomas from women-only colleges.<sup>33</sup> Such a practice evidenced a gender bias present in the automated system, which disadvantaged candidates in selection processes. The case has sparked debates about the risks of using algorithms without proper human oversight, especially with regard to the perpetuation of historical discrimination.

In this scenario, Viana and Macedo<sup>34</sup> observe that, by training the model on predominantly male backgrounds, the Amazon company crystallized female underrepresentation in technology, violating the equality of opportunities guaranteed in article 7, XXX, of the Federal Constitution of 1988. Although the system has been deactivated, the case has become a paradigmatic exemplification of the risk of replicating historical biases through biased data.

### 3.2 SURVEILLANCE AND DISCRIMINATION AGAINST PREGNANT WOMEN

Between 2021 and 2025, several complaints emerged that time-off metrics penalized pregnant women in Amazon's fulfillment centers, resulting in investigations requested by U.S. senators and class actions for discrimination.<sup>35</sup>

Reports from former employees indicate that, when informing them of their pregnancy, they began to be treated with suspicion and suffered reprisals, such as demotion of functions or unjustified dismissals. As if that were not enough, the company is known for adopting a system of constant and rigorous surveillance of its workers, with monitoring by algorithms, sensors and automated performance goals.<sup>36</sup> Such a combination of extreme control and neglect of workers' fundamental rights, such as maternity protection, raises serious concerns about the disrespect for labor rights and the precariousness of labor relations in highly technologized environments.

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<sup>33</sup> ROJAS, María Lorena Flórez. *Consumer and algorithms: an (in)conscious decision. Derecho, poder y datos: Aproximaciones críticas al derecho y las nuevas tecnologías*, 2024. Available at: [https://books.google.com.br/books?hl=pt-BR&lr=&id=HbROEQAAQBAJ&oi=fnd&pg=PA165&dq=algoritmos+caso+amazon+como+women%20%99s+rugby+team+&ots=mX9mFDpLw8&sig=PNmsrr2EJQiSaDsuSNgLKSD\\_\\_5Q](https://books.google.com.br/books?hl=pt-BR&lr=&id=HbROEQAAQBAJ&oi=fnd&pg=PA165&dq=algoritmos+caso+amazon+como+women%20%99s+rugby+team+&ots=mX9mFDpLw8&sig=PNmsrr2EJQiSaDsuSNgLKSD__5Q). Accessed on: 21 jul. 2025.

<sup>34</sup> VIANA; MACEDO, op. cit.

<sup>35</sup> Ibid.

<sup>36</sup> ROJAS, op. cit.



In this scenario, Fidalgo<sup>37</sup> warns that the requirement for continuous productivity ignores specific physiological needs, characterizing indirect discrimination prohibited by Convention No. 183 of the International Labor Organization. As a result, lawsuits have been filed against *Amazon*, reinforcing the need for mandatory human review in automated personnel management decisions.

### 3.3 THE XSOLLA CASE: THE DISMISSAL FOR "LOW ENGAGEMENT"

In 2021, Xsolla fired about 150 employees classified by AI as "disengaged and unproductive" after analyzing logs from Gmail, Jira, and Confluence. The CEO's letter, released publicly, indicated that the algorithm tracked online presence without considering vacations, sick leave, or parental care, evidencing quantitative arbitrariness.<sup>38</sup>

Rocha, Porto and Abaurre<sup>39</sup> maintain that such practices violate the right to be heard, as the worker is unaware of measurement parameters. The episode illustrates how the "algorithmic farewell" affronts the dignity of the human person by reducing performance evaluation to decontextualized metrics.

In view of the above, it can be seen that the cases cited here illustratively show how the indiscriminate use of algorithmic technologies, without transparency or human supervision, can intensify structural inequalities and compromise workers' fundamental rights. The platformization and automation of people management, when disconnected from ethical and legal principles, perpetuate historical discrimination, such as gender and maternity, while establishing a logic of dehumanizing control, incompatible with constitutional and international precepts for the protection of decent work.

## 4 PROPOSALS

From the analysis of the emblematic cases and the normative and doctrinal foundation, the urgency of regulatory measures that address the risks of algorithmic discrimination in labor relations is verified. The following proposals aim to reestablish the balance between

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<sup>37</sup> FIDALGO, Luiza Barreto Braga. Algorithmic discrimination: racism and sexism in labor relations. *Brazilian Journal of Development*, v. 8, n. 10, p. 67341-67354, 2022. Available at: <https://ojs.brazilianjournals.com.br/ojs/index.php/BRJD/article/view/53113>. Accessed on: 22 jul. 2025.

<sup>38</sup> FLORES, Ángel Jeancarlo Coaquirá. Humans vs. Machines: El Derecho al Trabajo vs. La Libertad de Empresa. *Revista de Derecho Procesal del Trabajo*, v. 8, n. 11, p. 98-118, 2025. Available at: <https://revistas.pj.gob.pe/revista/index.php/rdpt/article/view/1051>. Accessed on: 24 jul. 2025.

<sup>39</sup> ROCK; HARBOR; ABAURRE, op. cit.



technological innovation and the protection of fundamental rights, reaffirming the role of the State and institutions in the democratic control of automated systems.

#### 4.1 SUMMARY OF ARGUMENTS AND RESUMPTION OF THE THESIS

The introduction of artificial intelligence in the management of industrial relations has promoted a profound expansion of the employer's directive power, transferring essential decisions to algorithmic systems that operate to a large extent in an opaque and inaccessible way to the worker. Such opacity directly threatens the social function of property, a stony constitutional clause that requires that the exercise of the right to property be oriented towards collective well-being and the guarantee of fundamental rights.<sup>40</sup>

As algorithms assume the role of true "virtual owners" of the organization of work, as in the paradigms observed in the cases of *Amazon* and *Xsolla*, the imbalance between business efficiency and labor protection is observed, which generates serious risks of perpetuating structural discrimination and restricting the participation of workers.

In fact, the aforementioned episodes exemplify how automation, instead of simply optimizing management, can subvert fundamental ethical and legal limits, masking prejudices through supposed technological neutrality. Thus, the lack of transparency and effective mechanisms for monitoring and contesting puts in check constitutional rights, such as equality and the dignity of the human person.

Given this scenario, normative regulation becomes imperative to ensure that the exercise of directive power mediated by AI does not become a source of exclusion, but preserves its social function as an instrument of adequate development in labor relations, ensuring dignity, transparency, and the full exercise of the social values of work.<sup>41</sup>

#### 4.2 PROPOSAL 1: THE DUTY OF TRANSPARENCY AND QUALIFIED INFORMATION

Inspired by article 20 of the General Data Protection Law (LGPD), it is essential that companies are required to provide clear, understandable, and accessible information about the criteria and variables used in the algorithms that impact labor decisions, including the explanation of decision-making criteria, margin of error, and the guarantee of human review of automated decisions.

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40 STUDART, op. cit.

41 MIZIARA, op. cit.; STONE; FREITAS, op. cit.



As Rodrigues and Spamarberger argue,<sup>42</sup> the principle of explainability is not a mere technical attribute, but an indispensable corollary of the right to informational self-determination, which ensures the worker the real possibility of understanding, questioning and contesting decisions that affect his legal sphere.

Therefore, there is no denying that transparency amplifies the effectiveness of the adversarial and broad defense, central elements of due process in the labor field, preventing the worker from being subjected to algorithmic decisions as terminative and incontestable acts. And also, the disclosure of relevant data reduces informational asymmetries, demystifying the presumption of absolute neutrality of technology and fostering the accountability of companies for the implementation of these systems.<sup>43</sup>

#### 4.3 PROPOSAL 2: EXPAND AND STRENGTHEN THE ANPD'S PERFORMANCE

Also within the scope of the proposals to ensure the protection of workers in the face of emerging technologies and algorithmic discrimination, the National Data Protection Authority (ANPD) must recognize labor relations as a high-risk sector for the occurrence of discrimination and violations resulting from the use of AI and algorithms.

In view of this, a broader and more solid performance by the ANPD is proposed, which includes the application of graduated sanctions in cases of non-compliance, the mandatory requirement of independent audits to assess discriminatory biases, and the creation of specific technical guides and guidelines for the ethical and transparent use of artificial intelligence in labor relations.

Sainz, Gabardo, and Ongaratto<sup>44</sup> and Gonçalves<sup>45</sup> point out that this regulatory action must incorporate a preventive and collaborative approach, promoting dialogue between the State, employers, workers, and technological specialists. Therefore, strengthening the role of the ANPD will allow the repression of illegal practices, but also the collective construction of a regulatory environment that encourages responsible innovation and respect for the dignity of work, effecting the social function of property in its digital dimension.

Thus, recognizing the work environment as a sensitive space to algorithmic discrimination is an essential step for the realization of fundamental rights in the digital age. The strengthening of the ANPD's preventive and sanctioning action, combined with dialogue

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42 RODRIGUES; SPAREMBERGER, op. cit.

43 Ibid.

44 SAINZ; BOASTING; ONGARATTO, op. cit.

45 GONÇALVES, op. cit.



between the various social actors, represents a promising path to ensure that technological innovation does not occur at the expense of the dignity of the worker.

#### 4.4 PROPOSAL 3: INCORPORATE THE ETHICAL STANDARD "BY DESIGN" AND "BY DEFAULT":

As Pedra and Freitas argue,<sup>46</sup> the social function of property requires that the social costs arising from the implementation of new technologies be internalized in the initial phase of development of algorithmic systems. The ethical standard "*by design*" and "*by default*" *imposes that non-discrimination, minimization of the collection of sensitive data and the continuous correction of biases be incorporated in a structured and permanent way in the source code of the software, avoiding unwanted effects on workers.*<sup>47</sup>

For Levi *et al.*,<sup>48</sup> adopting a proactive strategy, in addition to reducing the risks of algorithmic discrimination, signals a corporate commitment to social justice and corporate responsibility, aligning the exercise of directive power with constitutional requirements and the protection of fundamental rights. Therefore, implementing these principles implies multidisciplinary integration between developers, jurists, and union representatives, enhancing auditable and reviewable systems, transparent, and aimed at respecting human dignity in all phases of the algorithmic production cycle.

In view of the above, these proposals are presented as a coherent and necessary set to harmonize technological innovation with the preservation of workers' rights, ensuring that the social function of property is not merely formal, but effectively present in the algorithmic governance of Brazilian labor relations.

### 5 CONCLUSION

At the end of this study, it was found that the digital transformation of labor relations puts business directive power back at the center of legal discussions, now intermediated by artificial intelligence technologies that make decisions based on criteria that are not always visible or auditable. In this new scenario, the employer's power is no longer exercised exclusively by human managers and starts to manifest itself through algorithms that, when

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46 STONE; FREITAS, op. cit.

47 PIMENTEL, José Eduardo de Souza. Artificial Intelligence and "Black Box" Algorithms: Dilemmas and Necessary Regulation. 2021. Available at: <http://ric-cps.eastus2.cloudapp.azure.com/handle/123456789/12812>. Accessed on: 18 jul. 2025.

48 LEVI *et al.*, op. cit.

not regulated with due rigor, reproduce and expand structural exclusions, mainly affecting historically marginalized groups in the labor market.

Nevertheless, the absence of transparency, the logic of "black boxes" and the lack of effective institutional control over such technologies point to a democratic deficit that threatens the advances achieved by labor protection throughout the twentieth century.

It was also found that the social function of property points to the imperative need to reconcile entrepreneurial freedom with the constitutional principles of equality, human dignity and social justice. Therefore, the company can no longer be understood only as an isolated economic agent, but rather as an entity that exercises private power with public repercussions, especially when it employs technological management tools that impact human lives on a scale.

In this context of wide use of emerging technologies, algorithmic transparency, independent auditing, and collective participation, through unions and internal commissions, among other issues, are presented as foundations for a new model of digital governance, in which the use of artificial intelligence is subject to social and legal control.

Thus, it is concluded that technological innovation in the workplace is welcome and necessary, as long as it is guided by ethical, legal and social criteria. Technology should serve humanity — not the other way around. When placed at the exclusive service of efficiency or profit maximization, without considering the impacts on the fundamental rights of workers, artificial intelligence loses its legitimacy and contributes to the precariousness of labor relations.

Thus, it is urgent to build a renewed social pact, capable of balancing technological progress with social justice, economic freedom with dignity of work. Such a pact, founded on the principle of the social function of property and protection against algorithmic discrimination, can ensure that the modernization of labor relations goes hand in hand with the consolidation of a truly democratic, inclusive and humanized society.

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