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## Algocracy: A critical analysis on management mediated by algorithms

*Algocracia: Uma análise crítica sobre a gestão mediada por algoritmos*

*Algocracia: Un análisis crítico sobre la gestión mediada por algoritmos*

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### ABSTRACT

The purpose of this essay was to reflect on the use of algorithms by organizations, especially in the mediation of work management, that has resulted in a model named algocracy. This system is guided by the search for efficiency and legitimized by the new information and communication technologies, affecting work relationships, organizational structures, and cultural, economic, social, and political aspects. For such reflection, we observed this algorithmic management model through the lens of critical management studies. We argue that the neoliberal context camouflages disparities between organizations and workers by legitimizing the ideology of flexibility and using algorithms to capture data, process it, and decide on workers' activities and assessments.

**Keywords:** algocracy; management; algorithms; technology; work.

### RESUMO

O objetivo desse artigo teórico é apresentar a temática da algocracia e seus contornos sob uma lente crítica, especialmente no que tange a utilização dos algoritmos pelas organizações, especialmente na mediação da gestão do trabalho. Esse sistema é pautado na busca por eficiência, e legitimado pelas novas tecnologias de informação e comunicação, afetando relações de trabalho e estruturas organizacionais, seus aspectos culturais, econômicos, sociais e políticos. Para tanto, observamos esse modelo de gestão por algoritmos pela lente dos estudos críticos de gestão. Argumentamos que o contexto neoliberal camufla as disparidades entre organizações e trabalhadores, ao legitimar a ideologia da flexibilidade, e usando os algoritmos para capturar dados, processá-los e, em seguida, decidir sobre as atividades e avaliações dos trabalhadores.

**Palavras-chave:** algocracia; gestão; algoritmos; tecnologia; trabalho.

### RESUMEN

El propósito de este ensayo es reflexionar sobre el uso de algoritmos por parte de las organizaciones, especialmente en la mediación de la gestión del trabajo, lo que da como resultado un modelo denominado algocracia. Este sistema se basa en la búsqueda de la eficiencia, y está legitimado por las nuevas tecnologías de la información y la comunicación, afectando las relaciones laborales y las estructuras organizativas, sus aspectos culturales, económicos, sociales y políticos. Para tal reflexión, observamos este modelo de gestión por algoritmos a través de la lente de critical management studies. Sostenemos que el contexto neoliberal camufla las disparidades entre organizaciones y trabajadores, legitimando la ideología de la flexibilidad y utilizando algoritmos para capturar datos, procesarlos y luego decidir sobre las actividades y evaluaciones de los trabajadores.

**Palabras clave:** algocracia; gestión; algoritmos; tecnología; trabajo.

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## 1 INTRODUCTION

The transversal insertion of dating in the management of organizations has had a significant impact on labor relations. On the one hand, technologies such as artificial intelligence (AI) and intelligent processing of algorithms have brought with them many contributions to organizations and society (Coombs et al., 2020; Vial, 2019; Faraj et al., 2018), while on the other hand, ethical dilemmas and reflections, and social networks linked to data-based business models have emerged showing that these devices can potentially lead to social and labor relations problems (Zuboff, 2019; Morozov, 2018; Noble, 2018; Pasquale, 2015; Gillespie, 2014).

In organizational studies, the relevance and emergence of understanding the topic are seen in full theoretical reflections and recent literature reviews that address algorithmically mediated management and its potential impacts (Kellogg et al., 2020; Trittin-Ulbrich et al., 2020; Brevini & Pasquale, 2020). Among the consequences discussed, studies related to algorithms and organizations reveal the possibility that data management interferes in various aspects of organizational dynamics, such as the formation and relationships of social groups in the organizational environment (Vaast, 2020; Lage & Rodrigues, 2020), fantasies of digitization in the workplace (Hensmans, 2020), loss of privacy (Anteby & Chan, 2018; Rosenblat & Stark, 2016; Woodcock, 2020); algorithmic control of work (Bucher et al., 2020; Curchod et al., 2019; Faraj et al., 2018), and workers' habits (Elmholdt et al., 2020) such as algo activity or workers' activism movements (Kellogg et al., 2020; Mercea & Yilmaz, 2018; Petriglieri et al., 2019; Mercea & Yilmaz, 2018; Etter & Albu, 2020; Birch, 2020; Petriglieri et al., 2019).

The automated or semi-automated governance model, which is organized and structured based on algorithms and capable of replacing human supervision, intervention, and management, is referred to in the literature as algocracy (Lorenz et al., 2020; Danaher, 2016; Aneesh, 2009). Among the activities considered typical of this management model mediated by algorithms, the collection, processing, comparison, and organization of data are listed, as well as communication to interlocutors about the direction of tasks, performative assessment, and disciplinary decisions (Danaher, 2016; Faraj et al., 2018; Kellogg et al., 2020). In summary, in addition to governing and controlling actions, management mediated by algorithms structures and restricts human interaction, changing the work dynamics of the physical environment (Kellogg et al., 2020; Kitchin & Dodge, 2011).

Some authors have analyzed the phenomenon of algocracy as a management system that uses information and communication technologies (ICT) and computer technologies to support a neoliberal subjectivation of total commodification of the individual, even reflecting on their behavior, emotions, and decisions (Chandler & Fuchs, 2019; Meijas & Couldry, 2019a; Morozov, 2018; Dardot &

Laval, 2016). Thus, one of the means of capturing and quantifying the data resulting from the actions of individuals is ICT, in a process called datafication (Couldry & Meijas, 2019c; Meijas & Couldry, 2019b). It means that the activities performed by individuals connected to organizations become the raw material to be processed by algorithms, resulting in recommendation, restriction, registration, classification, replacement, and reward actions (Elias & Gill, 2018; Kellogg et al., 2020).

Recently, studies relating to the dark side of digitization (Trittin-Ulbrich et al., 2020) have proposed some terms to define the current society permeated by ICT, data, and algorithms, such as surveillance capitalism (Zuboff, 2019), platform capitalism (Srnicek, 2016, 2017), big data capitalism (Chandler & Fuchs, 2019), and data capitalism (West, 2019). However, as already presented, outside Brazil, the field of organizational studies has only recently started to pay attention to the impact of algorithms and digitization on organizations, problematizing the glamor attributed to the commercial and economic potential arising from the proliferation of digital technologies.

In Brazil, efforts to investigate the relationship between technology and organizations are mostly advancing in the sociology of work (Abilio, 2020; Filgueiras & Antunes, 2020; Grohmann & Qiu, n.d.), and communication (Bruno et al., 2018; Silva & Birhane, 2020). In the area of administration, some recent studies have been limited to addressing the phenomenon of uberization (Insardi & Lorenzo, 2019; Kalil & Lopes, 2018; Serrano & Baldanza, 2017; Valente et al., 2019; Vianna et al., 2018), with a few adopting critical perspectives (Lage & Rodrigues, 2020; André et al., 2019; Franco & Ferraz, 2019; Guimarães Pinho, 2009; Antonio & Caetano, 2006; Fernandes & Raduenz, 2020; Oliveira Abensur, 2007; Vianna & Meneghetti, 2020).

Given the clear relevance and still incipient production of critical research in the field of administration on the subject, we will analyze the use of algorithms, by organizations, in mediating the management of the work the lens of critical management studies (CMS). The choice of CMS as a theoretical lens rests on its ability to observe organizations as institutions that corrode the lives of their employees and other stakeholders through instrumental practices (Alvesson & Willmott, 2003). In addition, it is possible to observe the interest of CMS in the topic in the works of Fleming (2019) on the consequences of robotics and artificial intelligence in the replacement of work, and Chandler and Fuchs (2019) in their critique of governance structures and processes involving big data systems, among others mentioned throughout the text.

To elaborate the analysis proposed here, we opted for the development of a theoretical article to present a given phenomenon and discuss its development process (Whetten, 2003), considering the need to promote research that analyzes intersections between management algorithmic processing and work activities. We believe that a theoretical article is the correct way to present the

concepts and elements which affect management that is mediated by algorithms, mainly because our proposal with the present work is to evolve or increase the discussion (Serra & Ferreira, 2017) about new technologies and society within the area of organizational studies. Moreover, given the unprecedented nature of studies on algorocracy in Brazil, even though management mediated by algorithms has already impacted our society, this work proves to be opportune.

To critically analyze algorocracy in the work context, after this introduction, we will present a brief contextualization of technology studies through the theoretical lens of CMS, seeking to introduce the history of its approaches regarding the work theme scanned. We then present the phenomenon of algorocracy, analyzing the management mediated by algorithms and the factors that permeate a worker's life against this management model. Finally, we present international and national studies that show its impact on contemporary work, elucidating issues that demand theoretical deepening from the academic community and pointing out future opportunities for empirical investigations.

## 2 CRITICAL MANAGEMENT STUDY, WORK, AND DIGITALIZATION

The exclusive marketing orientation perceived on capitalism kept organizations away from critical analysis of neoliberalism, technologies, and, above all, discussions about the developments arising from the intersection of these two phenomena (Faria, 2015; Langley & Leyshon, 2016). Contrary to this dominant logic, CMS seeks to denounce how organizations, their managers, and instruments mainly serve the imperatives of profit and power, camouflaging such motivations in a discourse about the search for efficiency (Alvesson & Willmott, 2003; Alvesson & Deetz, 1999; Ajnesh Prasad & Mills, 2010; Faria, 2009; Davel & Alcadipani, 2003).

Research that involves critical lenses on the adoption of new technologies and computational processing observes devices of domination by organizations over individuals in a relationship of monitoring and control (Adler, 1986, 1992; Zuboff, 1989). Thus, organizations may use various techniques and technologies and the indiscriminately financial rationality present in administration to legitimize control over the worker (Adler et al., 2007; Kärreman & Alvesson, 2004; Weber, 2004). In this train of thought, the so-called information society would represent the neoliberalism of information technology, digital capitalism, or the gig economy (Chandler & Fuchs, 2019). This is a structural change resulting in digital machines, capital, and works (Fuchs, 2014).

Fleming (2019) states that human work in precarious conditions with low wages or even that is unhealthy, is rarely replaced since we analyze it as a financially disadvantageous technological acquisition. Investment in technological advancement is explicitly based on the cost-

benefit logic: wage value of labor versus investment in digital technology development. It is possible to conclude, therefore, that the search for new technologies in the organization of work is a demand of neoliberal capitalism, and is not limited to an intrinsic trend in the evolution of technology (Fleming, 2019; Zuboff, 1989, 2019).

In the same way that managers and organizations used computer technologies in the early 1980s as artifacts of domination and power, it can be said that digital ICT, datafication, and algorithms today refine these practices (Beverungen et al., 2019; Chandler & Fuchs, 2019; Kellogg et al., 2020; Zuboff, 1989). As a performative advantage, for example, they grant neoliberal organizations the power to manage and decide on workers' associations and disassociations (analogous to traditional hiring and firing pacts) remotely and automatically, without justification or burden, legitimized by the discourse of efficiency and technological solutionism (Morozov, 2018; Srnicek, 2016, 2017), and legally supported by neoliberal labor reforms (Fleming, 2019).

Decisions characteristic of the manager, such as resource allocation, evaluation of workers and service providers, and reward, among others, are increasingly attributed to algorithms (Bader & Kaiser, 2019; Beer, 2009; Curchod et al., 2020; Kellogg et al., 2020). This situation is naturalized and celebrated when observed through the functionalist lens of those who govern the organization (Bourne, 2019; Gunaratne et al., 2018). On the other hand, it results in workers feeling manipulated, misunderstood, insecure, surveilled, disempowered, stressed, and exploited (Kellogg et al., 2020; Elmholdt et al., 2020; Morozov, 2018; Pasquale, 2015; Petriglieri et al., 2019).

The union between the ubiquity of connectivity and the advent of digital ICT produces a large amount of data stored and processed by algorithms (Kellogg et al., 2020; Schneider & Harknett, 2019; Faraj et al., 2018; Sadowski, 2019; Zuboff, 2019). This digital alchemy culminates in datafication, that is, in the quantification and control of people and their actions (Couldry & Mejias, 2019a, 2019b; Mejias & Couldry, 2019b). Thus, algorocracy presents, as a working structure, a technified system of management and control (or domination and surveillance) in magnitudes that are unimaginable, even in previous panoptic work contexts.

## 3 ALGOROCRACY: ALGORITHM-MEDIATED MANAGEMENT

Algorithm definitions are varied and derive from different lenses and perspectives. In the information systems and technology encyclopedia, meanings are related to usability, that is, different texts describe how a system receives data and, based on that data, takes specific actions (Chen, 2005; Zhang, 2005). Chandler and Fuchs (2019, p. 35) define an algorithm as "a reliable and defined procedure to solve a problem." However, algorithmic processes advance as natural explorers of data and producers of correlations and knowledge, capable of making



decisions usually attributed to human faculties (Chandler & Fuchs, 2019; Couldry & Mejias, 2019c; Pasquale, 2015).

As noted in this article, we have recently followed the comprehensive implementation of algorithmic technologies in the processes and governance of organizations. Initially, the algorithm-mediated management model was named algocracy by Aneesh (2009), differentiating it from other forms of bureaucratic organization which were already widely debated in management studies. However, the fact is that algorithmic governance is part of a historical trend toward the mechanization of organizational management in the incessant search for the execution of governance in the most efficient way possible (Weber, 2004).

Following a study by Aneesh (2009), Danaher (2016) describes algocracy as a particular type of governance model, whose structure is based on algorithms, which can be automated or semi-automated, and does not require supervision or intervention by human management. Therefore, the use of the algorithm in this function should not be treated simply as technological innovation but as a restructuring factor in the organization of work, giving rise to new forms of coordination, control, and surveillance (Faraj et al., 2018; Abilio, 2020a; Lorenz et al., 2020; Danaher, 2016).

To explore control in algocracy, Kellogg et al. (2020) state that the base of this management model is the use of algorithms in the collection, processing, comparison, and organization of the data to make decisions. Furthermore, with the data and information acquired from its processing, the algorithmic system itself is responsible for communicating with the interlocutors about the direction of the tasks, evaluating their performance, and making disciplinary decisions (Kellogg et al., 2020; Faraj et al., 2018; Danaher, 2016). Thus, systematically, it is possible to highlight six main control mechanisms intrinsic to data-mediated management: restrictions and recommendations to direct workers; registration and classification as support to assess workers and; finally, easy replacement and reward to discipline work behavior (Kellogg et al., 2020).

Operationally, algorithmically mediated management structures its control over processes based on its ability to subdivide, map, and digitally control simple and complex tasks, removing the demand for supervision by individuals under the guise of avoiding the risk of human error (Kellogg et al., 2020; Danaher et al., 2017; Faraj et al., 2018). In the literature, we find evidence about the differences between algorithmic control and previous forms of work control: (i) the instantaneity of algorithmic computation in corporate performance evaluations; (ii) the interactivity that allows the mapping of user behavior in real-time; (iii) the opacity of machine learning and; finally (iv) the disintermediation between humans, generating less possibility of contesting decisions made and less granting of exceptions to the rules (Kellogg et al., 2020; Faraj et al., 2018).

From the workers' perspective, while algorithmic control allows employers and clients to follow what workers are doing, those supervised are not offered the possibility to

understand employers' strategies (Kellogg et al., 2020; Faraj, 2018; Curchod et al., 2019). The discourse that perpetuates the defense of neutrality in algorithmic and automated control systems fallaciously underestimates the role of control and manipulation during calibration, intervention in the system architecture, and even in the construction of sanctions (Curchod et al., 2019; Noble, 2018; Gillespie, 2014).

Among the examples of algocracy in practice, the work agreement imposed in the said shared economy is characterized as workers being subjected to flexible work patterns based on demand for the service; providing their location and/or work tools; and performing tasks on an online platform and typically in a triangular relationship existing between the employee, the end-user, and a digital intermediary (Howe, 2006; Stewart & Standford, 2017).

As an example of the workers mentioned above, we have the application delivery professionals subjected to precarious circumstances and the guidelines provided by a set of algorithms. These individuals have become an example of data governance in context of the gig economy and the power of algocracy in a neoliberal model of society. This aspect becomes more intense when we analyze contexts of countries which are far from the axis of the global north, as we will see below.

#### 4 THE WORLD OF WORK RESTRUCTURED BY ALGOCRACY

We can observe different organizations and work being performed based on algocratic management (Kellogg, 2020; Newlands, 2020; Petriglieri et al., 2019; Vianna & Meneghetti, 2020).

Under the guise of this management model, most workers act as delivery people for applications, drivers called on through platforms, individuals who offer services and products via the platform, renters of rooms and residences, among others. Among several international and national platforms that use algorithms to explore work and have already been studied, some widely known are Uber, Uber Eats, iFood, Airbnb, eBay, Amazon Mechanical Turk, InnoCentive, Upwork, and Deliveroo, among others (Bucher et al., 2020; Curchod et al., 2019; Bader et al., 2019; Rosenblat & Stark, 2016; Rosenblat, 2018; Abilio, 2020b; Woodcock, 2020; Nakatsu et al., 2014; Schenk & Guittard, 2011). These include characteristics related to management by algorithms, already covered here, such as worker control, hiring or replacement, evaluation, payment, and dismissal (Faraj et al., 2018; Kellogg et al., 2020).

The characteristics of these workers are the use of their resources to acquire the means of production and provision of services (André et al., 2019; Filgueiras & Antunes, 2020; Vieira et al., 2020). In common, they have their activity mediated by a platform and managed by one (or a few) algorithms (Faraj et al., 2018) and, as a form of payment for the mediation service, the platform defines a rate or percentage to deduct from the payment to the

provider. The amount received may vary according to the characteristics of the worker and temporary contexts, and may be increased by the client, depending on the evaluation of the service provided (Rosenblat & Stark, 2016; Rosenblat, 2018; Abilio, 2020a; 2020b).

In a critical analysis, we note that, in line with neoliberal rationality, the idea that a wage relationship is a contract between two independent and equal wills becomes explicit and solidifies the strictly individual conception of the employment contract (Dardot & Laval, 2016). However, it simultaneously weakens the collective dimension and withdraws legitimacy from labor rights and union organizations (Dardot & Laval, 2016; Fleming, 2019; Casilli, 2017).

Curchod et al. (2019) highlight three main mechanisms of power asymmetries in the context of data management. The first mechanism deals with creating a new form of monitoring via customer evaluations, but with gaps in visibility between buyers and sellers, evidencing an implicit alliance between customers and the platform owner, who join in the performance monitoring procedures. The second is the restriction of human agency, as algorithms mediate and impersonalize relationships, intensifying power asymmetries between different actors. Finally, the third mechanism is composed of online evaluations by customers about vendors and service providers, exploring the perceptions of the latter by the former, and generating knowledge for algorithms to increase profits and control.

In most countries, labor relations mediated by digital technologies are not formally regulated and discussions are still open (Casilli, 2017). Consequently, this impacts on the argumentation, defense, and bargaining power of workers (Fleming, 2019), since – especially in developing and emerging countries – the context of economic crisis and lack of employment leads workers to accept, for example, the surveillance in personal dimensions, in a process that was until recently unimaginable (Abilio, 2020b; Casilli, 2017; Elmholt, 2020).

The application of algorithmic technology to organizational processes, allied to a neoliberal system of flexible workers, without adequate state support and dated, can be considered the perfect storm for a system named by Shoshana Zuboff as surveillance capitalism (Zuboff, 2019; Kuhn & Maleki, 2017; Srnicek, 2016). Thus, it is possible to say that the platform organizations adopt and sustain themselves in management by algorithms or algocracy (Curchod et al., 2020; Danaher, 2016; Lorenz et al., 2020).

In peripheral countries such as Brazil, the growing financial results of these platform organizations are the result of combining the adoption of digital technologies and labor reforms that erode workers' rights and achievements (Lorenz et al., 2020; Abilio, 2020a, 2020b; Woodcock, 2020). Thus, the massive algorithmic insertion into business strategy and management increases workers' vulnerability, allowing the intensification of the precariousness and legitimacy of informal work.

In addition, regarding the informal and platformized work model, and mediated by algorithms, the literature mentions another type of worker, who performs activities through their perceptions, with votes, evaluations, and content production and participation in games or co-creation, without being aware that their shares can be dated and commodified, and without receiving any monetary compensation or direct gain (Kleemann et al., 2008; Marjanovic et al., 2012; Zhao & Zhu, 2014; Estellés-Arolas & González- Ladrón-de-Guevara, 2012; Nakatsu et al., 2014; Schenk & Guittard, 2009; Vianna & Meneghetti, 2020). This example goes beyond the barrier of the precarious neoliberal employment contract and uses surveillance, datafication, and subsequent commodification of connected individuals' unconscious feelings and actions (Coudry & Yu, 2018; Morozov, 2018; Zuboff, 2019).

As we have seen, algocracy has been rapidly restructuring the world of work, giving rise to questions about other dimensions in which algorithms can reshape organizational control and how this phenomenon is requalifying the execution of management. Thus, the main objective of these new algorithmic technologies and their relationship with the discourses marked by the search for economic advantage and efficiency in organizations must be questioned.

## 5 FUTURE DIRECTIONS ON ALGOCRACY RESEARCH

The act of unraveling the concept of algocracy and exposing its main operating pillars invites discussion on how the insertion of algorithms into work and especially management, can change organizational behavior and intensify known control and domination strategies. New research could provide answers to existing gaps, especially regarding the sociopolitical context of countries far removed from the north axis, such as Brazil: How can organizational, institutional, or governmental policies customize and moderate this new form of labor relations? How and what are the differences found when this phenomenon occurs in peripheral countries? Advances concerning the Brazilian reality (which go beyond the problematizations between organizations and their algorithms) and workers in multifaceted scenarios should be assessed. Thus, we believe that our work can be seen as a relevant theoretical advance, contributing to a broad view of an increasingly digitized and platformed reality and acting as a springboard for further discussions and empirical analyses to be developed.

In this sense, we raise non-exhaustive possibilities for advances in studies and encourage a research agenda on five fronts: (i) the analysis of algocracy from intersectional perspectives and the limits of surveillance; (ii) debate on power asymmetry and the emergence of techno resistance; (iii) interaction between studies on algocracy and the field of law; (iv) studies on management mediated by algorithms in non-platformed organizations; and (v) the relationship between digitization and atypical contexts, such as the

consequences of the COVID-19 pandemic and its repercussions on and by digital technologies.

Expanding the functionalist and productivist view that leads the field, our article highlights the need to contemplate using algorithms in management in an intersectional way. The fallacy of digitalization neutrality tries to omit the fact that algorithmic processes reproduce and intensify realities of inequality, exclusion, and discrimination, such as social, racial, and gender positions, among others (Silva & Birhane, 2020; Noble, 2018; O'Neil, 2016). Research on algocracy from intersectional perspectives has observed the works platformed by lenses related to gender and race issues (Roshani, 2020; Araújo & Silva, 2020) and present advances outside the country, especially in the works of Noble (2018), O'Neil (2016), and Katz (2020), which analyze oppression and algorithmic racism, and the politics of whiteness that develops artificial intelligence systems. In Brazil, despite essential works by Silva and Birhane (2020), in communication, we lack studies in administration to understand through a critical lens the possible consequences of algorithmic management on relations between society and society organizations.

Following an agenda that addresses the reflection on the absorption of new management technologies, both the limits of the surveillance culture in the digitized labor relationship (as well as the transparency of this panoptic observation) and the extent to which the life of the worker can and should be (or not) invaded in favor of greater organizational profitability should come under scrutiny (Rosenblat, 2018; Bucher et al., 2020). In the context of platform work, discipline behaviors and devotion to norms can represent different meanings being, on the one hand, associated with hierarchies and sanctions (Curchod et al., 2019) and, on the other, related to new tactics deliberately constructed by organizations to avoid deviations from standards and exploitation of technological failures (Anteby & Chan, 2018).

The possibilities presented above make room for a second research front, which touches on technoresistance and collective agency discussions. An important example on the subject is the delivery collectives (couriers), such as the Spanish Mensakas (Fernández & Barreiro, 2020), where the algorithmic decisions correspond to the intentions of the cooperative delivery people. In addition, the use of digital media and social networks as a way to organize and highlight distortions related to algorithmic decisions could be a form of resistance (Tufekci, 2015). Therefore, using digital media and capabilities in favor of the collective should be considered, going against current discourses aimed at individualism.

The third research front is related to legal issues and the possible interaction between studies on algocracy and the field of law. In this respect, two paths are mentioned: the first refers to the legislation that governs labor relations between service providers, users, and the platforms that mediate these relations (Filgueiras & Antunes, 2020); the second is related to issues of ownership and data

expropriation (Zuboff, 2019), usually mediated by terms of consent developed by organizations in a unilateral effort, which establish the parameters of the relationships between organizations, their algorithms, and users/workers (Beli & Venturini, 2019). In this sense, the emergence of critical and propositional studies goes against labor legislation designed on a neoliberal basis and permeated by the precariousness of work, as mentioned above, and the slow and still meager advances in legislation on data protection.

Another possibility for progress in investigations which is still obscure is studies addressing algorithm-mediated management in non-platformed organizations. The recent wave of research on the subject focuses on platform work and, mainly, on the worker-entrepreneur relationship in a service provision model. However, the theme of algocracy makes room for the investigation of questions such as: How are the articulations of the discourse of digital and algorithmic technology characterized in traditional and hybrid organizations? How does this phenomenon influence the identity formation and behavior of workers? Some studies in managing people have already advanced in investigations related to processes involving people analytics (Van den Broek et al., 2019), but there is still a lot to discover.

Finally, it is opportune to mention the emergence of studies on algorithms in the current pandemic scenario, where we observe phenomena which, though antagonistic, are connected. It happens when we verify that the owners of organizations which adopt algorithmic models have been amassing unprecedented wealth (Collins, Ocampo & Paslaski, 2020), while users and workers experience increasing psychological suffering and pathologies (Király et al., 2020; Jaspal et al., 2020; Abilio, 2021).

## 6 FINAL REFLECTIONS

This article sought to critically analyze the use of algorithms in the mediation of work management, a phenomenon known as algocracy. Starting from the theoretical perspective of CMS and dialoguing with the contemporary context of digitalized work, we argue that neoliberal organizations, under the guise of using technologies to improve their performance and efficiency, try to hide the asymmetries of power between organizations and workers. Furthermore, they reinforce the idea of the flexible and autonomous worker, even controlling individuals via algorithmic technology in management – ranging from data capture to worker evaluations. We also contribute by summarizing examples of algocracy in both the global and Brazilian contexts, highlighting the importance of the theme and the need for further studies.

Corroborating the ideas of Clegg, Kornberger, and Pitsis (2008), we understand that, in reality, organizational relations of power and knowledge are the true shapers of labor dynamics. Thus, it would be naive to believe that the complete construction of this article will abruptly influence change in organizations' practices in their use of algorithms



in work management. After all, we know that technology, like algorithms, is not responsible for determining organizational behavior but the result of deciding it. Nevertheless, our understanding is that, by presenting a concept that is still under development and construction outside Brazil but which already shows significant repercussions in our society, we will advance the debate and problematization of the phenomenon of algocracy. Finally, as a secondary objective, we dare to provoke the academic community, especially in the field of organizational studies, to investigate new responses concerning the relationship between management and the consequences of the application of algocracy in the practices of organizations and society, suggesting an agenda composed of research fronts in the area.

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