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## VOICES FOR THE NETWORKED SOCIETY

# Unveiling ‘Algorithm Governance’ Shaping Labor Platforms’ Strategies and Working Conditions in the Digital Era

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## ABSTRACT

Research on platform work has primarily focused on analyzing how algorithmic management influences working conditions by empowering platforms to govern digitally-delivered services. However, prior research has overlooked the crucial aspect of how algorithmic management underlies platforms’ use of diverse contractual forms of employment available in the labor markets from where they source their workforces. Bridging this gap is vital to understanding how labor platforms integrate algorithm management, which employs digitally programmed procedures for coordinating and governing labor input, with various contractual employment structures influenced by regulations and collective actors such as trade unions. Coined as *algorithm governance*, this phenomenon represents the fusion of algorithm management with contractual employment frameworks, emanating from labor market regulations and policies. This essay pioneers the concept of *algorithm governance*, illuminating its ontological capacity to enrich debates on algorithm management. *Algorithm governance* thus explains how algorithm management intricately shapes working conditions by influencing the use of diverse contractual employment forms within the labor market.

# 1 Algorithm Management

Building upon sociological and socio-legal perspectives on algorithm management, the examination of platform workers' working conditions has predominantly centered on how algorithm management empowers labor platforms. In this view, labor platforms are the new "bosses" who govern digitally-mediated service providers (Aloisi & De Stefano, 2021).

Studies have broadly scrutinized the working conditions of platform workers in the context of the algorithmic management techniques adopted by labor platforms to automate employment-related management duties and functions (Dugan et al., 2020; Wood et al., 2019; Mateescu & Nguyen, 2019). Accordingly, algorithm management refers to the use of computer-programmed procedures which transform input data into a desired output (Kellogg et al., 2020, p. 341) to retain the organization's control over work and workers (Wood, 2021; Woodcock & Graham, 2020). In essence, labor platforms employ algorithms to manage the workforce by assessing platform workers through reputational systems that rank them based on customer-generated ratings (Wood et al., 2019; Shapiro, 2018, 2020; De Stefano, 2019). The use of software algorithms to automate organizational functions is guaranteed through a lack of transparency due to built-in asymmetrical power relations (Aloisi et al., 2017). In addition, labor platforms implement gamification processes, compelling workers to actively engage with the platform, thereby establishing a strong connection between workers and the platform, and ensuring a constant workforce ready to meet demand (Maffie, 2020). This integration of gamification is intertwined with workers' conditions on labor platforms. Indeed, labor platforms use distinct mechanisms to allocate and oversee work by leveraging a blend of technological infrastructure and algorithms. The secretive algorithms employed by platforms limit workers' autonomy and reduce their power to decide on both prices for services (Pulignano et al., 2024; Rani et al., 2023) and how to provide the services through the platform (Rosenblat & Stark, 2016; Ticona, 2022).

Based on algorithm management, economic sociology research has further highlighted that labor platforms function as "self-regulatory" entities, establishing their internal rules, instead of strictly adhering to any external state, professional, or collective regulations concerning quality standards, formal qualifications, and credentials (Frenken et al., 2020). In this view, algorithms play a relevant role in platforms' being considered "market organizers" (Kirchner & Schüßler, 2019) which generate profits (Grabher & König, 2020) by algorithmically directing and governing the distribution of work in accordance to their own terms and conditions (Coyle, 2017).

Nevertheless, some studies have begun to look critically at the argument of platforms as “self-regulatory” entities. In particular, Vallas and Schor (2020, p. 13) claimed that such a characterization can be “misleading.” One of the motivations supporting this argument is that platforms organize services within markets which are not inherently or naturally structured by the platforms themselves due to digital service markets not being predetermined or naturally bound to be organized solely by these platforms. For instance, research on freelance and food delivery services digitally organized by platforms both on- and off-line has illustrated how isomorphic pressure stemming from the wider service market, such as the standardized and differentiated nature of the service, as well as the regional or global scope of the platform which organizes it, can contribute to shaping how platforms operate within a service market (Muszyński et al., 2022; Pulignano et al., 2024). This perspective potentially challenges the notion that platforms have a complete, inherent control over the service markets by the algorithm shaping their rules and operations within these markets, and suggests instead that there are other factors or possibilities influencing the organization of digital service markets beyond the platforms’ self-regulation by algorithm management.

## 2 Beyond Algorithm Management

This essay is a first conceptual attempt to enrich the debate on the effects of algorithm management on the working conditions of employees by enhancing knowledge on the relationship between algorithm management and the use of diverse contractual employment forms within the labor markets from which platforms recruit their workers. This paper proposes that examining platforms’ rules and operations by contextualizing them within the local labor market where service provisions are organized by platforms through algorithms can potentially enhance knowledge on the platforms’ strategies and practices of broader labor governance. There are challenges and complexities associated with the employment arrangements and the management of the workflow within labor platforms. Indeed, while labor platforms avoid the unpredictability of labor demand, they must still ensure a consistent workflow and an adequate supply of labor, such as a workforce ready to meet demand (Maffie, 2020). This is not self-evident, as platforms primarily employ workers with independent, self-employed contracts (Bayurgil et al., 2023). Studies on platform work have illustrated that labor platforms maintain a consistent workflow of labor by using algorithm management to monitor and evaluate workers’ schedules and job performances (Woodcock, 2020). In essence, platforms introduce their own organizational algorithm-based business models that involve implementing an app-based, digitally-mediated marketplace for workers (Oppegaard et al., 2019) so that, in the case of food-delivery, for instance, customers are connected to restaurants via digitally-mediated couriers (Franke & Pulignano, 2021).

Digitally-mediated marketplaces are crafted by platforms entering locally-embedded service markets through circumventing their external rules, constraints, and regulations (Niebler et al., 2023) by either “regulatory compliance” or “regulatory disruption” (Pulignano et al., 2023). Although platforms’ strategies for organizing the service market may bypass or undermine existing institutional structures, platforms should not be considered “institutionally neutral” (Koutsimpogiorgos et al., 2022). At the same time, the algorithm management which is used by platforms to coordinate the service provisions within the institutionally-embedded labor market settings is also not deterministic (Thompson & Laaser, 2021). For example, studies have documented workers’ ability to realize agency when providing services through platforms. Although platform rules shape this ability (Wood & Lehdonvirta, 2022), empirical evidence has illustrated how workers create spaces of agency by ensuring control over platforms’ strategies within the distinctive political institutional realm where different labor market logics may collide (Pulignano & Franke, 2023).

Hence, more scholarly attention is needed to understand how platforms’ algorithm management relates to the regulation of the local labor market where platforms organize service provisions between clients and workers. In the following section, we introduce the concept of *algorithm governance* to underscore the importance of understanding how labor platforms effectively manage the workflow of labor supply while coordinating service provisions within a market governed by national laws and local regulations. This exploration aims to contribute to a deeper understanding of the broader processes and dynamics through which platforms govern labor at the intersection between the internal (labor organization) and the external (labor market) division of labor.

### 3 Introducing Algorithm Governance

#### What’s behind a name?

*Algorithm governance* offers a framework for understanding how labor platforms govern labor at the intersection between the internal and external division of labor. There are theoretical complexities surrounding labor platforms’ strategies and practices of algorithm management. As mentioned above, these complexities pertain to these strategies and practices being neither institutionally neutral nor deterministic. Labor platforms use algorithm management to monitor labor. This includes clients’ reviews of completed tasks and/or automated tracking of worker performance, such as location availability. In applying such algorithm technologies to work organization, platforms create incentives for workers to act in accordance with company objectives, especially in terms of maximizing economic transactions and thus maintaining a consistent workflow of labor supply.

However, algorithm management has important implications for working conditions. For example, in ride-hailing platforms, drivers who fall below a certain rating are removed from the platform (Rosenblat & Stark, 2016). The strong interlinkages between ratings, employability, and income exert significant pressure on workers, as ratings stimulate them to uphold and improve their performance. This, in turn, reinforces individual behaviors which are aligned with platform objectives, such as delivering high service quality in spite of the longer and unsocial unpaid hours it requires (Pulignano et al., 2023). On the other hand, platforms implement algorithm technologies within service markets where laws and local regulations often exist. As Wilks (1996, p. 538) argued, all markets “are created by governments, ordered by institutions, and sustained by regulation.” In other words, business strategies and operations as the expression of models of capitalism, including digital capitalism, are or should be responsive to national governmental regulation.

Despite ongoing efforts, our understanding of how labor platforms strategically navigate the organization of digital service provisions through algorithmic technologies within and across different regulatory settings remains limited. The implementation of *algorithm governance* can enhance our knowledge of the processes and dynamics involved in platforms’ organizing service provisions within a service market, challenging the notion that labor governance is the exclusive prerogative of algorithm management. In essence, *algorithm governance* achieves this by elucidating how algorithm management intricately shapes the working conditions of platform workers through influencing the platform’s use of diverse contractual employment forms within local regulatory labor markets. These conditions thus result from platforms’ strategies and practices aimed at guaranteeing a regular supply of labor within the market by encompassing the employment contractual form. Simply put, the power of *algorithm governance* lies in its ability to reveal how platforms adeptly navigate the labor market while organizing economic transactions. Labor platforms achieve this by dynamically responding and adapting their internal algorithmic technical infrastructures to align with external national regulations, all in pursuit of maintaining a cost-effective and flexible labor force. The following subsection provides some brief empirical illustrations.

### Illustrations from the field

We here provide a brief illustration of how *algorithm governance* functions by considering two examples from the food delivery sector: Deliveroo and Just Eat Takeaway in Belgium. These labor platforms employ a distinct *algorithm governance* system, which consist of adopting a distinctive contractual form of employment, aligned with the country’s laws and regulations. Each *algorithm governance* system is associated with a unique approach to algorithm management which makes use of a distinctive approach toward employment contracts.

Just Eat Takeaway, a Dutch online food delivery platform, uses performance ratings and metrics to oversee a restricted population of workers, particularly couriers, contractually engaged in an employment relationship. Just Eat Takeaway incentivizes careers by the algorithm management through ratings and performance system so that only couriers performing well can climb the hierarchy and become “driver captains.” Conversely from “driver captains,” who have stable and direct employment relationships with the platform, couriers hold a non-standard employment contract – mainly an hourly-based one – and they are often employed through labor market intermediates which guarantee the application of the collective agreement within the service-based triangular employment relationship. In contrast, Deliveroo – a UK-based food delivery service – relies on a piece-rate algorithm-based system, targeting uncontracted self-employed workers. Within this system, Deliveroo couriers are paid per delivery.

In essence, Just Eat Takeaway’s workflow guarantee is tailored to an employment population of employees, either directly or through a labor market intermediate, whose deployment is governed by an algorithm management based upon a performance rating system which regularly selects the workforce. On the other hand, Deliveroo’s piece-rate system seemingly promotes flexibility through the use of a self-employment contractual status. This allows the platform to reduce costs by avoiding social security and tax payments associated with direct employment, while retaining an on-demand and flexible workforce. Deliveroo benefits from the De Croo Law, passed in 2016 in Belgium, which established the novel peer-to-peer (P2P) employment status for platform workers. It allows one to work on a highly-discounted tax rate of 10%, as opposed to the general high taxation on employee work, for earnings of up to approximately up to around 7,170 euros per year (Pulignano & van Lancker, 2021).

## 4 Conclusion

This essay has introduced the concept of *algorithmic governance* to explain how algorithmic management underlies labor platforms’ use of diverse contractual forms of employment available in the labor markets from which platforms source their workforces. In essence, *algorithmic governance* is a useful analytical category to elucidate how algorithmic management intricately shapes working conditions by influencing the use of diverse contractual employment forms both *within* and *by* platforms. The concept of *algorithm governance* potentially provides valuable insights into the evolving landscape of research on platform work by enhancing the body of knowledge on algorithmic management through revealing its impact on the working conditions of platform workers through the shaping of diverse contractual forms of employment. Future research on platform work could delve more deeply into the intricacies of algorithm governance and provide a much more encompassing view of the processes and mechanisms underpinning the platforms’ labor governance strategies within distinctive regulatory contexts.

The concept of *algorithm governance* has important implications for research and policy. In 2021, the European Commission proposed a new directive to improve platform workers' working conditions. The proposal set rules to facilitate the correct determination of platform workers' employment status, as well as to improve transparency, fairness, and accountability in algorithmic management by introducing the principle of the presumption of employment status. At the moment of writing, after the EU Council twice failed to raise the necessary support for the Platform Work Directive deal it had negotiated with the European Commission and the European Parliament on December 22, 2023, and on February 16, 2024, the Directive has been finally approved on 11 March 2024.

By showcasing how the deleterious working conditions entrenched in the platform world may be intersecting different types of employment status, we underline the importance of paying close attention to how platform working conditions can be improved by examining their *algorithm governance* systems. This requires a closer examination of the labor market context where platforms use their algorithmic management to implement their systems of *algorithm governance* to ensure a regular workflow of labor. Due to the ongoing disintegration of the binary divide between employment status and self-employment, many European countries have already introduced “third status” employment solutions within the labor market aimed at diversifying working conditions among different groups of self-employed workers. These include, for instance, P2P status in Belgium, para-subordinate status in Italy, and civil law contracts for mandate in Poland, which are commonly used in the respective countries to structure contractual relationships within platform work (Muszyński & Pulignano, 2023). Thus, we conclude that a more detailed inspection of the presumption of employment status, as introduced by the proposed directive, would also include an examination of its relationship with the “third status” self-employment solutions already adopted within different countries in Europe. At the same time, we point to that the approval of the Platform Work Directive does not automatically establish conditions for applying the legal presumption of employment for all platform workers. The determination of whether a subordination relationship exists is left to the national member states, creating a compromise that is likely to result in disparate criteria for transposing the directive into national law. Once more, and consequently, a level playing field for platform workers' rights across the EU seems may be improbable, as different criteria may be adopted across different member states. Whether these criteria will generate diverse outcomes will likely depend on national dynamics and power forces.

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