

Article

Platform Economies and Invisible Labor in the Global South

Godfrey Wandwi 

School of Digital Technologies and Transformation Studies, Dar es Salaam Tumaini University, Dar es Salaam P.O. Box 77588, Tanzania; godfrey.wandwi@dartu.ac.tz

Received: 1 March 2026; **Revised:** 2 May 2026; **Accepted:** 22 May 2026; **Published:** 24 June 2026

Abstract: The contemporary expansion of platform economies has produced labor landscapes in the Global South that are at once hyper-visible and profoundly obscured. Workers such as drivers, content moderators, and microtaskers perform essential functions that sustain digital infrastructures, yet their contributions remain largely invisible, rendered abstract within algorithmic systems. This paper interrogates the mechanisms through which invisibility is produced, tracing the interlocking layers of digital labor, platform governance, and socio-economic precarity. Employing a conceptual-analytical methodology, it examines case studies from ride-hailing, crowdwork, and content moderation platforms, highlighting the asymmetrical distribution of agency between platforms and laborers. Analytical attention focuses on three layers: input labor, algorithmic mediation, and economic output, revealing how platforms simultaneously operationalize, quantify, and obscure human work. Methodologically, the paper adopts a conceptual-analytical approach grounded in secondary empirical literature and comparative case illustrations from the Global South. Diagrams illustrate labor flows and visibility gradients, situating worker contributions within broader computational and economic structures. Findings indicate that invisibility is not incidental but structurally embedded: it serves both profit maximization and epistemic obfuscation, reshaping perceptions of labor value and authorship. Beyond empirical description, the paper engages critically with ethical, cultural, and epistemological implications, emphasizing how platform-mediated work reproduces pre-existing social hierarchies while generating novel forms of digital inequality. In conclusion, the study advances a framework for understanding platform labor as emergent, distributed, and algorithmically conditioned, urging further research on governance, regulation, and labor rights in digitally mediated economies. The study contributes a fourfold typology of invisible labor and develops a comparative framework linking algorithmic governance, labor invisibility, and socio-economic inequality.

Keywords: Platform Economies; Invisible Labor; Digital Labor; Socio-Economic Inequality

1. Introduction

The proliferation of platform economies has fundamentally reshaped not only global labor markets but also the very ontology of work itself, particularly within the Global South. Digital labor platforms such as Uber, Glovo, Upwork, and Amazon Mechanical Turk have introduced new modalities of organizing, distributing, and evaluating labor. These platforms promise efficiency, flexibility, and global connectivity; however, beneath this seemingly frictionless interface lies a deeply complex and often obscured network of human effort. Workers across these systems engage in a wide spectrum of tasks—from ride-hailing and food delivery to software development, content moderation, translation, and microtask execution. Despite their centrality to platform functionality, their labor is frequently abstracted into algorithmic outputs, quantified through ratings and metrics, and rendered socially and economically invisible [1,2].

This transformation is particularly pronounced in the Global South, where platform-mediated labor has grown rapidly in countries such as South Africa, Tanzania, Brazil, and the Philippines. These regions have become key nodes in global digital labor supply chains due to a combination of factors, including high unemployment rates, expanding internet penetration, and the appeal of flexible income opportunities. Yet, this expansion reveals a fundamental paradox: while workers are hyper-visible as data points within platform ecosystems (tracked, measured, and evaluated in real time), they remain largely invisible as human actors within broader socio-economic structures. Their identities, working conditions, and contributions are often obscured, leading to a disconnect between digital visibility and lived experience [3].

The invisibility of platform labor manifests across multiple, interrelated dimensions. First, algorithmic opacity plays a central role in concealing human labor. Platforms are designed to present services as automated or seamlessly coordinated, minimizing the visibility of the workers who perform the underlying tasks. For example, a user requesting a ride or outsourcing a digital task encounters a streamlined interface that obscures the labor processes involved. Algorithms determine task allocation, pricing, and evaluation, yet these processes are typically opaque to workers themselves. This lack of transparency not only limits workers' understanding of how their labor is managed but also reinforces their marginalization within the system.

Second, socio-economic conditions in the Global South exacerbate this invisibility. Many platform workers operate within informal labor markets characterized by weak regulatory frameworks, limited social protections, and precarious employment conditions. In such contexts, platform work often lacks formal recognition, further diminishing workers' bargaining power and access to rights such as minimum wages, health insurance, or collective representation. Additionally, disparities in digital literacy and access to technology can create asymmetries in participation and benefit, reinforcing existing inequalities. Workers may depend heavily on platforms for income while simultaneously lacking the resources or knowledge to navigate their complexities effectively [4].

Third, the underlying logic of platform economies (driven by scalability, efficiency, and profit maximization) structures labor in ways that prioritize output over worker well-being. Platforms are designed to optimize performance metrics, reduce costs, and maximize user satisfaction, often at the expense of fair labor practices. This results in what can be described as epistemic erasure: the systematic omission or devaluation of human labor contributions within knowledge systems. Workers become interchangeable units within a larger algorithmic framework, their individual experiences and skills reduced to quantifiable indicators such as ratings, completion times, or acceptance rates. Consequently, the qualitative dimensions of labor (such as creativity, emotional effort, or contextual expertise) are often overlooked or undervalued.

Figure 1 conceptually illustrates the distribution of platform labor across the Global South, emphasizing gradients of visibility and valuation. Regions with high concentrations of platform workers may exhibit significant economic activity, yet this does not necessarily translate into social recognition or improved labor conditions. Instead, disparities emerge between the visibility of digital outputs and the invisibility of the workers who produce them. This uneven landscape highlights the need for a more nuanced understanding of how platform economies operate across different socio-economic contexts.

This study addresses several research questions.

- (1) How do digital platforms structure labor in the Global South?
- (2) What forms of invisibility, exploitation, or precarity emerge in these digitally mediated economies?
- (3) How do algorithmic logics intersect with socio-economic inequality, reproducing or amplifying existing hierarchies?

By engaging these questions, the paper situates itself at the intersection of digital humanities, labor studies, and socio-technical critique. Within digital humanities, the study contributes to emerging debates concerning datafication, algorithmic culture, digital infrastructures, and the politics of visibility. By examining how human labor is transformed into abstracted digital outputs, the paper demonstrates how platform systems shape not only economic relations but also cultural representation, knowledge production, and epistemic recognition. It does not merely document the presence of labor invisibility; it interrogates the processes through which invisibility is algorithmically produced, socially normalized, and economically leveraged. While prior studies have examined hidden labor in platform systems [5,6], this paper extends these discussions by developing a comparative conceptual framework focused specifically on platform labor conditions in the Global South. The study contributes a fourfold typol-

porary labor landscapes. It lays the groundwork for a deeper exploration of invisible labor, algorithmic mediation, and structural inequality, offering both theoretical and empirical foundations for understanding the complexities of digital work in an increasingly interconnected world [1–4].

2. Literature Review

The emergence of platform economies has been accompanied by a profound reconfiguration of labor, value creation, and visibility, particularly within the Global South. Digital platforms such as Uber, Amazon Mechanical Turk, Glovo, and Upwork have transformed how work is organized, distributed, and evaluated, introducing new forms of labor mediation rooted in algorithmic governance. These systems rely on sophisticated computational infrastructures that allocate tasks, monitor performance, and determine compensation through automated processes. Rating systems, dynamic pricing mechanisms, and task fragmentation are central to this model, enabling platforms to scale rapidly while maintaining tight control over dispersed labor forces. However, while these mechanisms create an appearance of efficiency and seamless coordination, they simultaneously obscure the human labor that underpins platform functionality [7].

At the core of this transformation is the increasing reliance on algorithmic governance as a means of managing labor. Platforms do not merely facilitate interactions between workers and clients; they actively structure these interactions through opaque decision-making systems. Algorithms determine which worker receives a task, how much they are paid, and how their performance is evaluated, often without providing transparent explanations. This opacity reinforces asymmetrical power relations, as workers are subject to rules and processes they cannot fully understand or contest. Moreover, platforms strategically present their services as automated or technologically driven, downplaying the extent of human involvement. This representation contributes to a broader narrative in which labor appears almost invisible, replaced by the illusion of autonomous digital systems. This condition is closely described as “ghost work,” in which human labor sustains ostensibly automated systems while remaining socially and economically hidden. Similarly, platform workers develop collective strategies to resist algorithmic asymmetries and opaque reputational systems [6]. These foundational studies reveal that invisibility is not merely technological but structurally embedded within platform governance.

This dynamic aligns with what Papadimitropoulos (2021) conceptualizes as “platform capitalism,” a model characterized by the extraction of value through digital infrastructures that minimize labor costs and regulatory obligations [8]. In this framework, platforms act as intermediaries that capture value not only from transactions but also from data generated through user interactions. Workers, in turn, are positioned as flexible and expendable resources, whose contributions are continuously measured and optimized. This model has particularly significant implications for the Global South, where regulatory environments are often less robust and labor protections are fragmented or inconsistently enforced. In such contexts, platform capitalism can intensify existing inequalities, as workers have limited avenues for redress and are more vulnerable to exploitation.

The concept of invisible labor has emerged as a central theme in scholarly analyses of platform economies. Invisible labor refers to forms of work that are essential to economic and technological systems but remain unrecognized, undervalued, or obscured from public view. Within platform contexts, this invisibility takes multiple forms. Emotional labor, for instance, involves the management of feelings and interpersonal interactions to meet customer expectations, a common requirement in ride-hailing and delivery services. Workers must maintain politeness, responsiveness, and professionalism, often under challenging conditions, yet this effort is rarely acknowledged in formal evaluations or compensation structures.

Another significant category is microtask labor, which involves the completion of highly repetitive and fragmented tasks, such as data labeling, transcription, or image classification. These tasks are typically distributed through platforms like Amazon Mechanical Turk, where workers perform small units of work for minimal pay. While each task may appear trivial in isolation, collectively they form the backbone of larger technological systems, particularly in the development of artificial intelligence. Closely related is algorithmic labor, where human input is used to train and refine machine learning models. Workers annotate datasets, correct errors, and provide feedback that enables algorithms to improve over time. Despite their critical role in shaping intelligent systems, these contributions are often hidden behind the outputs of the algorithms themselves.

Data labor represents another dimension of invisibility, encompassing the ways in which human activities (such as browsing, clicking, or interacting with digital platforms) are transformed into valuable data. This data is

then commodified and monetized by platform companies, often without explicit recognition or compensation for the individuals who generate it. In this sense, users themselves become unwitting contributors to platform value creation, blurring the boundaries between labor and consumption. Together, these categories illustrate the multi-faceted nature of invisible labor and its centrality to contemporary digital economies [9].

Marxian labor theory provides a useful analytical lens for understanding these dynamics, particularly through its emphasis on surplus value extraction. From this perspective, invisible labor can be seen as a form of exploitation in which the value generated by workers exceeds the compensation they receive, with the surplus captured by platform owners. Algorithmic infrastructures play a key role in obscuring this process, as they mediate the relationship between labor and value in ways that are difficult to trace. Workers may be aware of their immediate earnings but lack visibility into how their contributions fit into broader value chains. This opacity not only limits their ability to negotiate better conditions but also contributes to the normalization of inequitable arrangements.

Critical digital labor studies extend this analysis by highlighting the epistemic dimensions of invisibility. Beyond economic exploitation, invisible labor involves the systematic erasure of worker contributions from knowledge systems and public discourse. Platform outputs (whether in the form of delivered services, processed data, or trained algorithms) are often perceived as products of technology rather than human effort. This misrecognition reinforces the marginalization of workers and obscures the social relations embedded within digital systems. **Figure 2** conceptually represents these dynamics by mapping the categories of invisible labor, the platforms that depend on them, and their varying degrees of public visibility.

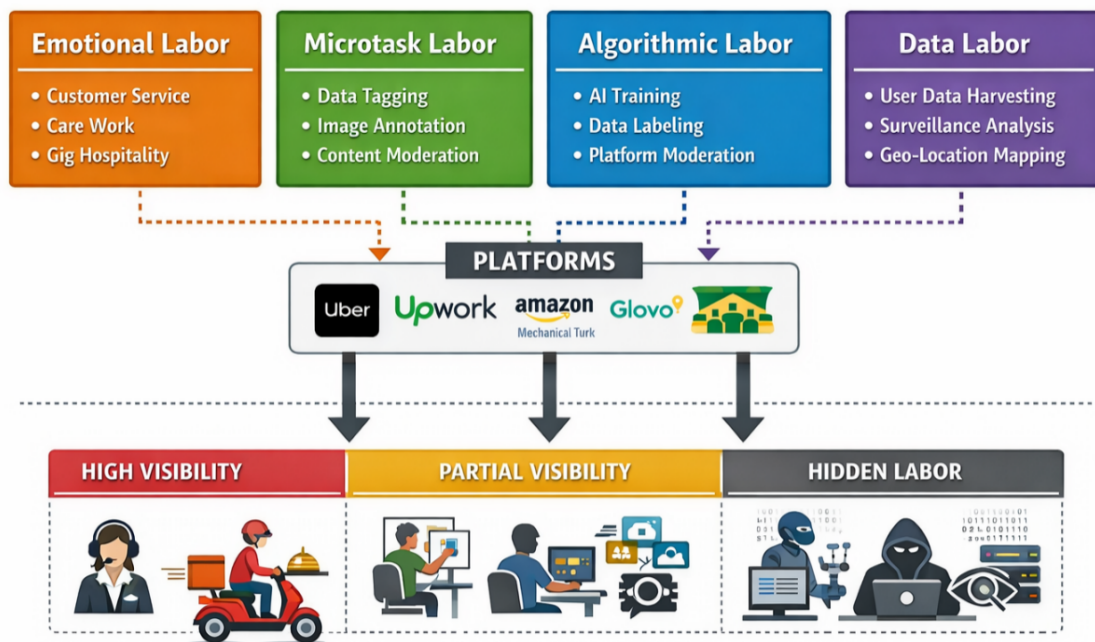


Figure 2. Typology of Invisible Labor in Platform Economies.

In the context of the Global South, platform-mediated labor does not emerge in a vacuum; rather, it is deeply entangled with pre-existing structural socio-economic precarity. Conditions such as limited labor protections, persistent unemployment, and the dominance of informal employment sectors significantly shape how workers engage with digital platforms. For many individuals, platform work is not simply an option but a necessity which is a means of survival in environments where formal employment opportunities are scarce. As a result, workers often accept unfavorable conditions, including unstable income, lack of social protections, and limited recourse against exploitation. These vulnerabilities are further intensified by weak regulatory frameworks that fail to adequately address the complexities of platform-based labor, leaving workers exposed to asymmetrical power relations between themselves and platform corporations [10].

A critical dimension of this precarity lies in the regulatory and informational gaps that characterize many Global South economies. In numerous cases, labor laws have not kept pace with the rapid expansion of digital platforms, resulting in ambiguous classifications of workers as “independent contractors” rather than employees. This classification effectively excludes them from protections such as minimum wage guarantees, health benefits, and collective bargaining rights. Simultaneously, disparities in digital literacy contribute to a form of structural invisibility. Many workers lack a clear understanding of how platforms operate, particularly the algorithmic systems that determine task allocation, performance evaluation, and remuneration. This opacity creates an environment in which workers are governed by systems they cannot fully comprehend or challenge, reinforcing their marginalization within the digital economy.

Digital inclusion, often heralded as a pathway to economic empowerment, is itself unevenly distributed. Access to reliable internet connectivity, appropriate digital devices, and the skills required to navigate platform interfaces varies significantly across and within countries in the Global South. These disparities create stratified modes of participation, where only certain segments of the population can fully engage with and benefit from platform economies. Even among those who do gain access, onboarding processes (such as identity verification, language requirements, and technical proficiency tests) can act as barriers that exclude or disadvantage particular groups. Consequently, while platform economies are globally integrated, their benefits are unevenly localized, often reinforcing rather than alleviating existing socio-economic inequalities.

The literature consistently highlights a fundamental tension between global technological expansion and local socio-economic constraints. On one hand, digital platforms enable workers in the Global South to connect with global markets, offering opportunities for income generation and skill development. On the other hand, these opportunities are embedded within contexts marked by inequality, informality, and limited institutional support. This duality produces labor forms that are simultaneously global and marginal: workers contribute to transnational value chains while remaining economically and socially peripheral within their own societies. The result is a paradoxical condition in which integration into the global digital economy does not necessarily translate into improved labor conditions or social mobility.

Existing scholarship converges around three major themes: algorithmic governance, labor precarity, and data extraction. However, these strands are often treated separately. Studies of platform capitalism emphasize value extraction and market restructuring, while digital labor studies focus on worker exploitation and invisibility. Meanwhile, digital humanities scholarship interrogates questions of representation, datafication, and epistemic power. This paper synthesizes these perspectives by arguing that invisible labor in platform economies is simultaneously economic, technological, and epistemic. Despite increasing scholarly attention to platform economies, significant gaps remain in the existing body of research. Much of the literature has focused on platforms operating in the Global North or has emphasized macroeconomic trends, such as job creation and market expansion. While these perspectives are valuable, they often overlook the micro-level experiences of workers in the Global South. There is a notable lack of empirical studies that capture how individuals navigate platform work in their daily lives, including the strategies they employ to cope with uncertainty, resist unfavorable conditions, or negotiate algorithmic control. Understanding these lived experiences is essential for developing a more comprehensive and nuanced account of platform labor [11–13].

Furthermore, critical engagement with the ethical, cultural, and epistemic dimensions of invisible labor remains limited. Platform-mediated work is not only an economic activity but also a process that shapes knowledge production, cultural representation, and social hierarchies. For instance, content moderators in the Global South play a crucial role in maintaining the integrity of digital spaces, yet their labor is often hidden and undervalued. Similarly, data annotation and microtask work contribute to the development of artificial intelligence systems, raising questions about who produces knowledge and who benefits from it. These dimensions highlight the need to move beyond purely economic analyses and consider the broader implications of platform labor within digital societies.

This paper seeks to address these gaps by integrating insights from critical labor theory and digital humanities. By foregrounding the experiences of workers, it shifts the analytical focus from abstract systems to the human actors who sustain them. The study also employs conceptual diagrams (**Figures 1–3**) to visualize the complex interactions between labor, data, and algorithmic mediation. These visualizations help to identify key points where labor becomes obscured or devalued, as well as the mechanisms through which control is exerted. In doing so, the paper provides a multi-layered understanding of how invisibility is not merely a byproduct of platform economies

but a structurally embedded feature.

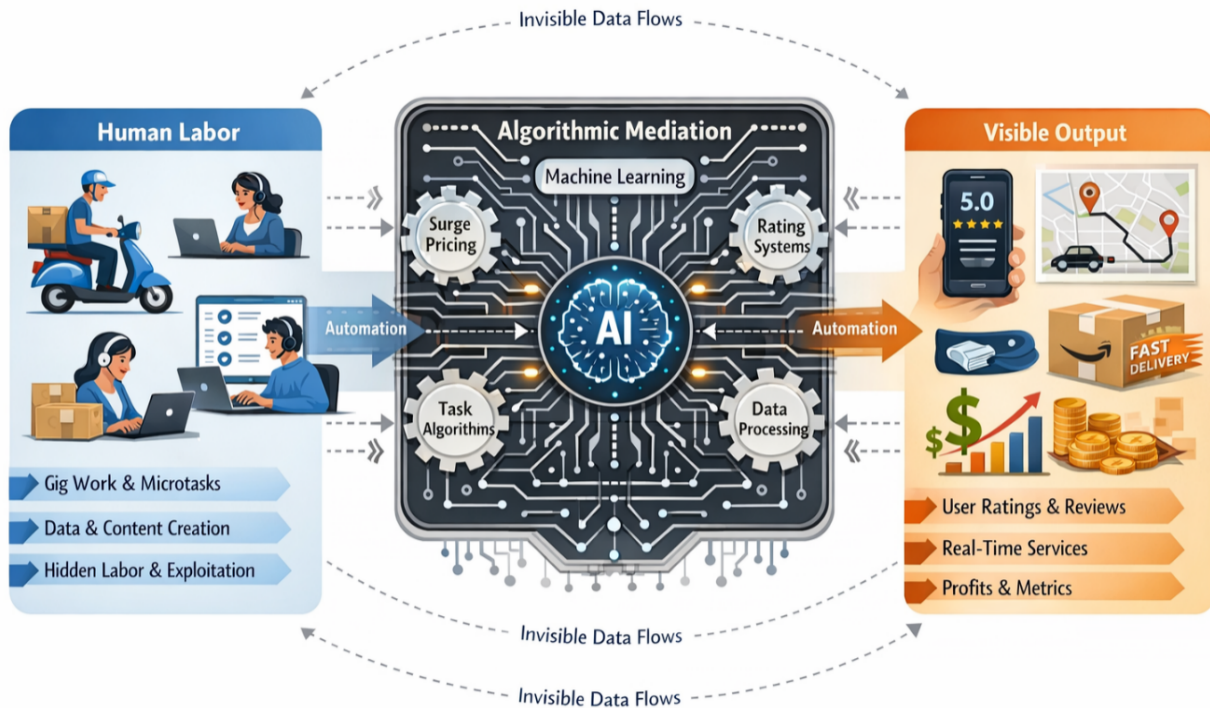


Figure 3. Conceptual diagram of digital labor in platform economies, showing human input, algorithmic mediation, and output visibility.

Ultimately, by situating platform labor within the socio-economic realities of the Global South, this analysis extends existing scholarship beyond descriptive accounts toward a more critical and explanatory framework. It illuminates not only what invisible labor is, but also how and why it is reproduced across digital systems. This approach opens up new avenues for examining issues of agency, inequality, and digital precarity, contributing to a more holistic understanding of contemporary labor dynamics in an increasingly interconnected world [9–13].

3. Theoretical Framework

Understanding platform economies and invisible labor in the Global South requires a conceptual lens capable of capturing both the material and the algorithmic, the visible and the occluded. This study grounds itself in digital labor theory, a framework emerging from critical political economy and digital studies, which interprets labor not merely as productive effort but as socially, economically, and technologically mediated activity [14]. Digital labor theory emphasizes that human work in digital platforms is simultaneously commodified, algorithmically structured, and epistemically obscured. Workers’ contributions (whether driving, moderating, translating, or performing microtasks) are rendered invisible to consumers, platform owners, and, at times, the workers themselves. They are “hidden in plain sight” [15], forming a paradoxical landscape in which hyper-digitization amplifies visibility of output while erasing the human input.

This framework allows the paper to interrogate three interlocking dimensions of platform labor. The paper advances existing digital labor scholarship in three ways. First, it integrates emotional, microtask, algorithmic, and data labor into a unified framework of invisibility. Second, it situates invisible labor specifically within the socio-economic realities of the Global South rather than treating platform labor as geographically universal. Third, it combines digital labor theory with digital humanities perspectives to examine not only economic exploitation but also epistemic erasure, representation, and visibility within algorithmic systems.

First, algorithmic governance: how computational rules and AI-driven decision-making structure labor alloca-

tion, performance evaluation, and remuneration. Platforms operationalize efficiency through rating systems, surge pricing, and task recommendation engines, which embed normative assumptions about worker behavior, reliability, and value. Second, labor commodification and invisibility: human effort is quantified, disaggregated into microtasks, and transformed into data that fuels further automation or predictive analytics, effectively divorcing effort from recognition or social valuation [16]. Third, socio-economic impact: algorithmically mediated work intersects with local precarity in the Global South, where labor protections are weak, digital literacy is uneven, and regulatory oversight is minimal, producing novel forms of inequality and vulnerability [17]. An intersectional perspective is also incorporated into the framework, recognizing that labor invisibility is unevenly experienced across gender, class, language, and digital literacy divides. Platform algorithms often reproduce pre-existing inequalities by privileging workers with greater technological access, linguistic fluency, or socio-economic advantage, thereby shaping differential patterns of visibility, remuneration, and vulnerability.

Digital labor theory also enables the integration of Marxian critiques of surplus value with contemporary observations about algorithmic culture [18]. Human work is not only exploited economically but epistemically; the labor of workers generates value invisibly, sustaining platforms' global reach while remaining largely unacknowledged. The framework permits a critical interrogation of power relations embedded in digital infrastructures: who decides which work is visible, which labor is valued, and how algorithmic metrics shape perception and opportunity.

By using this theoretical lens, the paper situates invisible labor as an emergent product of systemic, socio-technical forces rather than an incidental byproduct. It foregrounds labor as both material and informational, recognizing that platform economies mediate work through algorithmic logics that reconfigure value, authorship, and recognition. This approach also provides a foundation for the subsequent analysis, enabling a detailed mapping of platform-mediated labor flows, highlighting points of opacity, and assessing implications for socio-economic inequality. The theoretical framework thus functions as both an analytic lens and interpretive compass, connecting empirical observation to conceptual insight and situating the study within ongoing debates in digital humanities, critical labor studies, and socio-technical research.

4. Methodology

This paper adopts a conceptual-analytical methodology, deliberately calibrated to probe the entangled phenomena of platform economies and invisible labor in the Global South. Recognizing that labor invisibility is simultaneously structural, algorithmic, and socio-cultural, the study integrates analytical interpretation with selective empirical case engagement, drawing from multiple sources to construct a nuanced understanding of platform-mediated work [19]. Unlike strictly quantitative approaches, this methodology privileges depth over breadth, emphasizing interpretive insight into the ways platforms operationalize, obscure, and commodify human labor.

This study is designed as a conceptual-analytical inquiry rather than a primary empirical investigation. The objective is not to generate original field data but to synthesize and critically interpret existing scholarship, policy reports, and documented platform labor experiences through the lens of digital labor theory. The selected case studies therefore function as illustrative comparative examples used to examine how different forms of invisible labor emerge across platform ecosystems in the Global South.

Case Studies: Three focal categories of platform labor are employed as illustrative vectors. First, ride-hailing drivers (Uber, Bolt) in urban centers of Tanzania and South Africa, whose labor is algorithmically monitored, incentivized, and evaluated, yet whose social and economic contributions remain undervalued. Second, freelance digital workers on platforms such as Upwork and Fiverr, whose fragmented tasks exemplify microtask labor and algorithmically mediated visibility. Third, content moderators and AI trainers, often located in the Global South, who labor to filter, categorize, and curate digital content, producing cognitive and affective labor that is hidden within platform outputs [20]. These cases illuminate different dimensions of invisibility (physical, cognitive, and algorithmic) and together map a spectrum of labor mediation. The comparative selection of these cases is based on three analytical dimensions: (1) degree of algorithmic control, (2) visibility of human labor to platform users, and (3) form of labor performed (physical, cognitive, or affective). Ride-hailing drivers represent physically visible but algorithmically controlled labor; freelance microtaskers represent fragmented and economically invisible digital labor; and content moderators represent cognitively intensive yet publicly concealed labor. This comparative structure enables cross-case analysis of how invisibility operates differently across platform-mediated work environments.

Data Sources: The analysis draws upon published reports, platform operational data, policy documents, sec-

ondary ethnographic studies, policy reports, and published empirical research on platform labor. These sources provide both macro-level insights into systemic structures and micro-level accounts of worker experience, creating a layered understanding of labor visibility and erasure.

Analytical Tools and Techniques: The study employs critical discourse analysis to interrogate language, policy, and platform-mediated communication that frames labor as automated, invisible, or neutral. Thematic analysis is applied to qualitative data and reports, identifying recurrent patterns in labor invisibility, algorithmic mediation, and socio-economic precarity. Conceptual diagrams are introduced to model labor flows, algorithmic interventions, and visibility gradients (Figure 4). Although the figures are primarily conceptual, they are informed by recurring patterns identified across published empirical studies, platform reports, and documented worker experiences in the Global South. For example, one diagram traces the pathway from human labor input → algorithmic processing → platform output and remuneration, highlighting points of epistemic erasure.

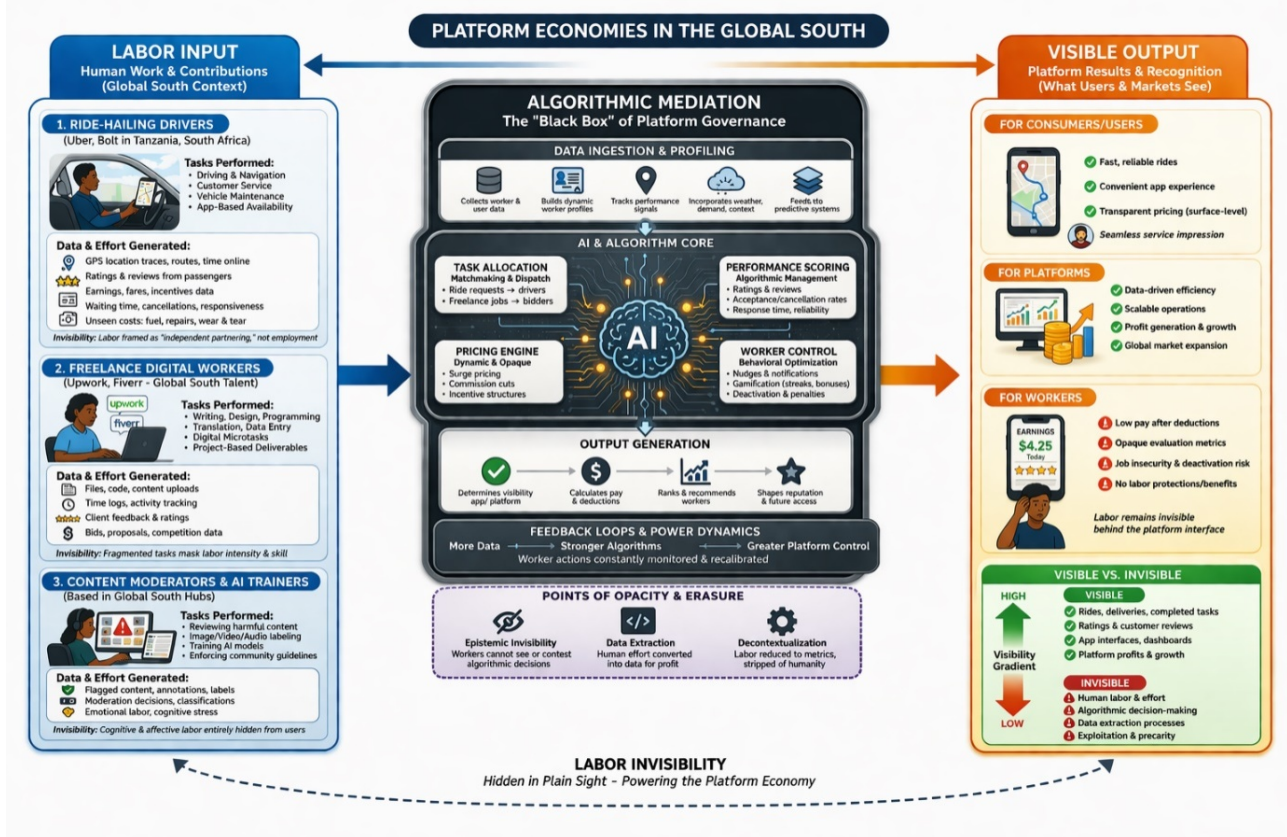


Figure 4. Labor input, algorithmic mediation, and output visibility in platform economies of the Global South.

This methodology is particularly suited to the study’s objectives because invisible labor is not easily captured through standard metrics or surveys. The conceptual-analytical approach allows integration of structural, cultural, and algorithmic dimensions simultaneously. Case studies contextualize abstract concepts in lived labor realities, while diagrams render visible the otherwise obscured dynamics of platform work. By bridging conceptual theory and selective empirical observation, this methodology illuminates not only the forms and patterns of invisibility but also their socio-technical and economic implications, providing a robust foundation for subsequent analysis and discussion of labor agency, exploitation, and platform governance. Accordingly, the study does not claim statistical generalizability but instead aims to provide theoretically grounded interpretive insight into the socio-technical dynamics of invisible platform labor.

5. Results

The analysis of platform-mediated labor in the Global South reveals multi-layered patterns of visibility and erasure, where human contributions are simultaneously indispensable and obscured. Platforms operate on logics of efficiency, scalability, and algorithmic governance, which structurally shape both the distribution of tasks and the perception of labor value [21]. Across cases (from ride-hailing drivers in Dar es Salaam and Johannesburg to microtask freelancers on Upwork and content moderators in Manila), the same underlying dynamics emerge: algorithmic mediation transforms human effort into data streams, metrics, and outputs, while concealing the labor itself from platforms' users, consumers, and sometimes even the workers themselves.

5.1. Algorithmic Mediation and Labor Obfuscation

Platforms mediate work through automated allocation systems, ratings, and reward structures. For example, Uber drivers' labor is algorithmically segmented into trips and scored via passenger feedback, yet the algorithms obscure factors such as waiting time, vehicle maintenance, or cognitive labor in navigating urban traffic [22]. Similarly, content moderators' work (categorizing, filtering, and training AI) is algorithmically quantified in productivity metrics, but the cognitive and emotional labor involved remains invisible [23]. **Figure 5** illustrates this dynamic, showing the flow of human labor through algorithmic mediation to platform output, with points of invisibility highlighted in red.

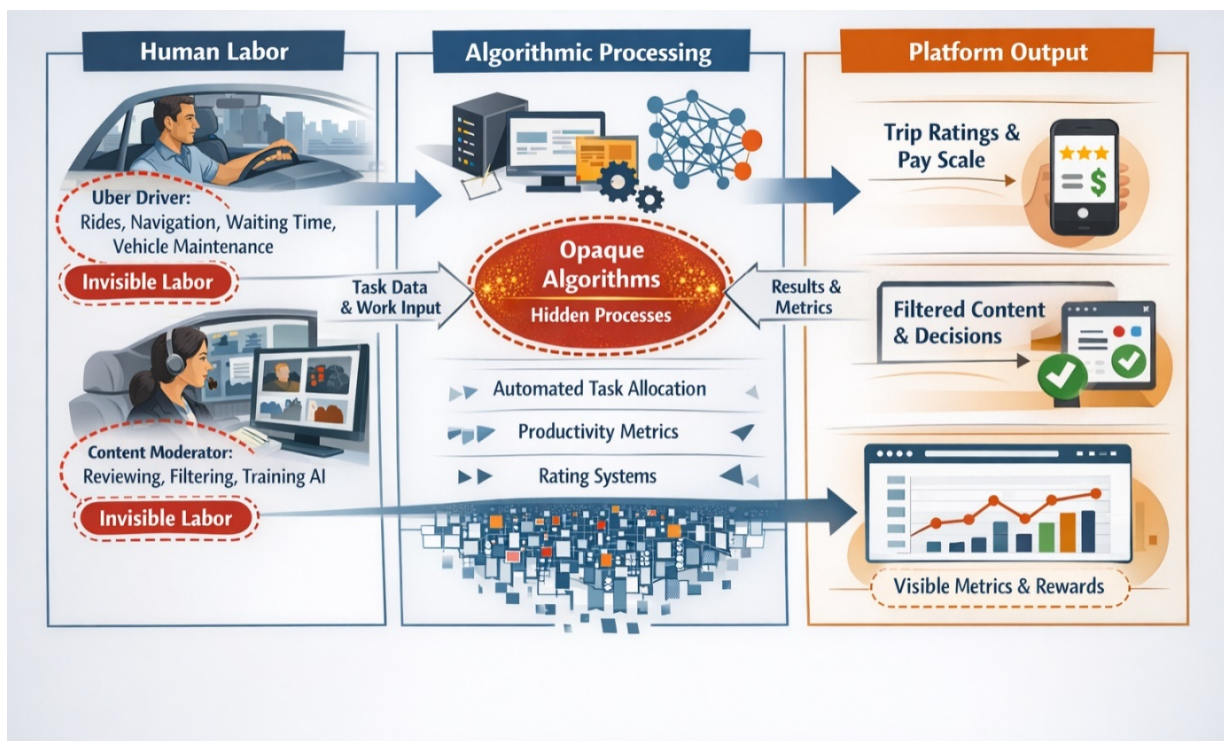


Figure 5. Worker input, algorithmic processing, and output visibility in platform economies.

5.2. Human–Algorithm Interactions

Interactions between humans and algorithms further reinforce invisibility. Algorithms dictate the timing, allocation, and evaluation of tasks, leaving little room for worker negotiation or recognition. In freelance marketplaces, tasks are segmented into micro-units, and algorithmic recommendation systems push workers toward low-paid, high-turnover assignments. These mechanisms render individual skill, labor intensity, and decision-making invisible, privileging platform efficiency over human agency [24]. Workers develop informal strategies to navigate these constraints, such as coordinating with peers to optimize earnings or gaming algorithmic assignment, but these adaptations remain unrecognized by platforms and unrecorded in output metrics.

5.3. Socio-Economic and Intersectional Dimensions

Invisibility is also gendered, racialized, and classed. Women disproportionately occupy low-paid, high-microtask roles such as content moderation or social media management, whereas men dominate higher-paid ride-hailing or technical freelance work. Platform algorithms often amplify these disparities by perpetuating existing socio-economic hierarchies: language proficiency, digital literacy, and access to devices determine visibility in algorithmic scoring and task allocation [25]. Workers from marginalized socio-economic backgrounds experience intensified precarity, as algorithmic opacity limits their ability to challenge remuneration, task assignment, or labor conditions.

Case Examples

1. Ride-Hailing Drivers in Nairobi: Average driver earnings are calculated via trip fares, yet time spent waiting, fuel costs, and traffic navigation remain invisible to both platform and user. Drivers report that algorithmic incentives (surge pricing, rating bonuses) prioritize platform profit over equitable compensation.
2. Freelance Microtaskers in South Africa: Workers on Upwork complete fragmented tasks valued in cents, with algorithms automatically ranking their performance. Critical labor (problem-solving, decision-making, and creativity) is unmeasured.
3. Content Moderators in the Philippines: Human judgment trains AI models, yet the platforms' portrayal of moderation as automated work erases both cognitive and emotional contributions [26].

Figure 6 illustrates the layered interaction between platform workers, algorithmic systems, and digital outputs, revealing how human labor is embedded within processes that are often presented as fully automated. It highlights the points at which cognitive and emotional contributions are absorbed into algorithmic workflows and subsequently rendered invisible in platform narratives of automation.

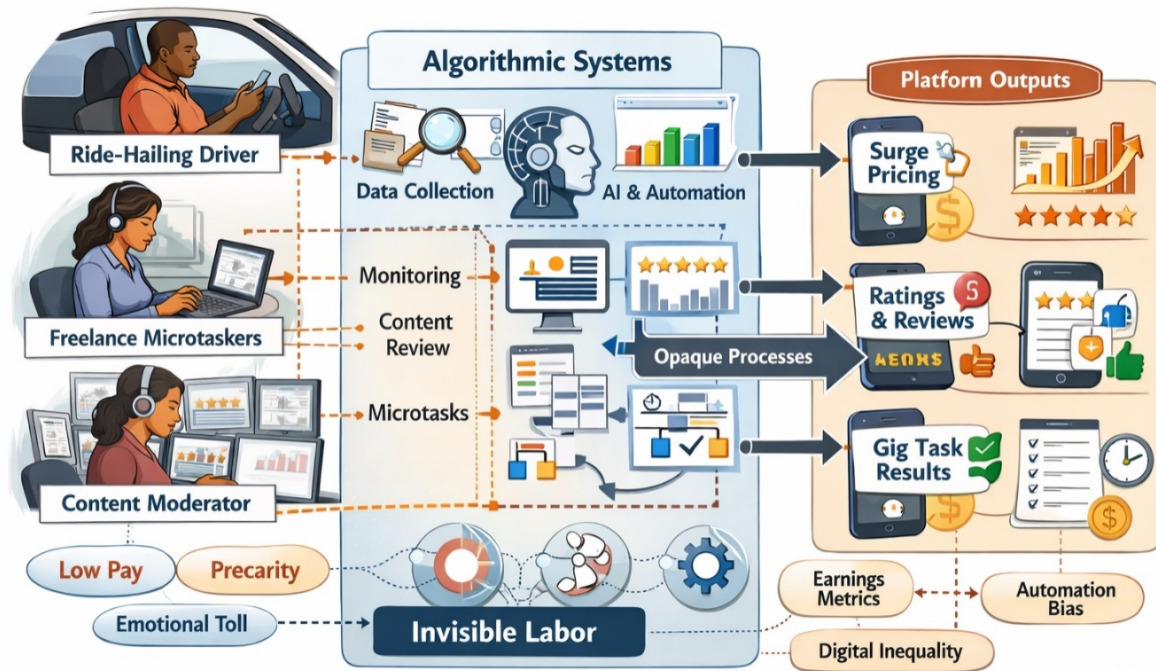


Figure 6. Interaction map of platform workers, algorithms, and outputs, highlighting points of human labor invisibility.

These results illustrate that invisibility is structural, algorithmic, and socially mediated. Platform logics produce labor flows that are measurable in output but opaque in input. Workers' agency is circumscribed, recognition is limited, and socio-economic inequalities are reproduced and amplified. The empirical and conceptual insights

here establish the foundation for a critical discussion of the broader implications for labor rights, digital inclusion, and ethical governance in platform-mediated economies.

6. Discussion

The findings of this study elucidate the intricate interplay between platform economies, invisible labor, and socio-economic structures in the Global South, interpreted through the lens of digital labor theory. The theoretical framework frames labor not merely as transactional effort but as a socio-technical construct, where human input is algorithmically mediated, quantified, and often epistemically erased [27]. The results demonstrate that the invisibility of labor is not incidental; it is produced structurally, embedded within the logic of platforms that simultaneously depend on and obscure human work. Algorithms function as both orchestrators and concealers: they allocate, evaluate, and reward labor, while transforming human effort into data points, reducing the perceptibility of skill, time, and cognitive labor [28].

6.1. Comparison with Existing Literature

These insights align with existing scholarship on global digital labor and platform-mediated precarity. Scholars such as Javokhir et al. have shown that platform logics prioritize efficiency and profit extraction over labor recognition, a dynamic that is intensified in the Global South due to weak regulatory environments and infrastructural precarity [29]. Similarly, Ponce Del Castillo emphasizes algorithmic governance as a central mechanism in the creation of “ghost work,” where labor is present yet unacknowledged [30]. However, this study contributes further by highlighting intersectional dimensions: gender, socio-economic status, and digital literacy significantly mediate visibility and value, confirming that platform economies reproduce pre-existing inequalities while presenting them as neutral, data-driven systems.

6.2. Cultural Implications

Culturally, the normalization of invisible labor reshapes perceptions of work. Human effort is reframed as seamless service or automated process, devaluing both expertise and affective contribution. For example, content moderation is framed publicly as AI-driven, even though humans perform nuanced judgment, resulting in widespread cultural misrecognition of labor [31]. Similarly, ride-hailing drivers’ strategic navigation and interpersonal labor are largely invisible to consumers, reinforcing a perception that the platform (not the worker) is the locus of value creation.

6.3. Epistemological Implications

Epistemologically, labor is transformed into data, a commodifiable abstraction divorced from human experience. Microtasks, algorithmically scored outputs, and platform dashboards encode performance while erasing context, effort, and skill. This produces a “datafied labor ontology,” where value is measurable only through algorithmic outputs, rendering invisible not only the workers’ actions but the knowledge, cognition, and ethical judgment embedded within their work [32,33].

6.4. Power Dynamics

Power remains asymmetrically distributed: platform owners and shareholders accrue disproportionate economic benefit, while workers shoulder precarity and invisibility. Algorithmic opacity limits negotiation, and the global reach of platforms allows capital accumulation that is decoupled from localized labor struggles. **Figure 7** illustrates these power asymmetries, mapping labor flows, algorithmic mediation, and visibility gradients, showing where profit is concentrated and where labor remains unacknowledged.

In sum, the discussion situates invisible labor as a systemically produced, culturally normalized, and epistemically obscured phenomenon. It connects the empirical findings with digital labor theory, foregrounding the socio-technical mechanisms of invisibility, the reproduction of inequalities, and the algorithmic production of labor data. This conceptualization underscores that platform-mediated labor is not merely precarious but structurally designed to obscure, commodify, and extract value from workers while presenting outputs as algorithmically autonomous, raising urgent ethical, social, and policy considerations for the governance of global platform economies.

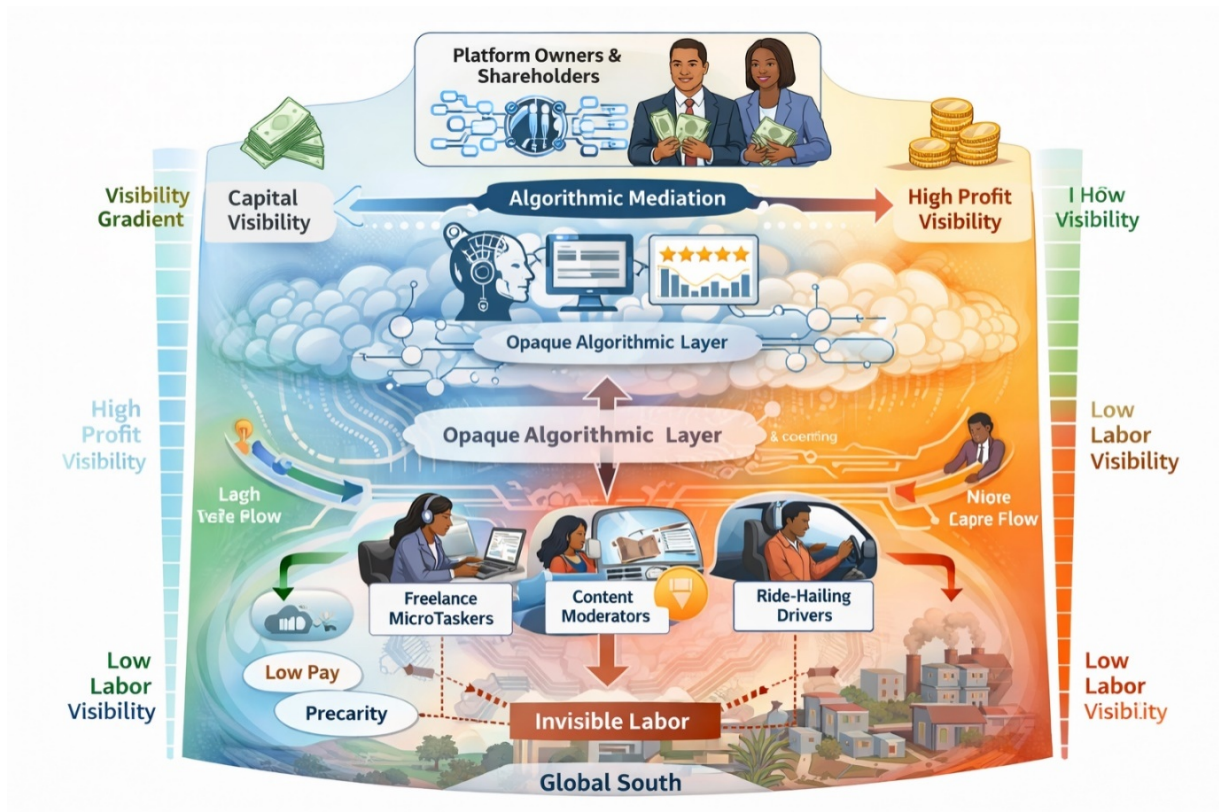


Figure 7. Power asymmetries and visibility gradients in platform-mediated labor in the Global South.

7. Limitations

A limitation of this study is that platform economies evolve rapidly, meaning that labor practices, algorithmic systems, and governance structures may change over time. Future empirical research would strengthen understanding of how invisible labor is experienced and contested in different socio-technical contexts.

8. Conclusion

This study has critically examined platform economies and invisible labor in the Global South, revealing that the labor underpinning digital platforms is simultaneously essential and systematically obscured. Across cases (from ride-hailing drivers to microtask freelancers and content moderators), the findings demonstrate that algorithmic governance mediates visibility, value, and control, transforming human effort into data while erasing the cognitive, affective, and social dimensions of labor [32–34]. Labor invisibility is neither accidental nor incidental; it is a product of platform logics, economic imperatives, and socio-technical design choices. Platforms extract value by rendering workers' contributions epistemically invisible, while socio-economic inequalities (gender, class, and digital literacy) further amplify precarity in the Global South.

The paper contributes to scholarship in digital labor studies, socio-technical analysis, and digital humanities by providing an integrated framework that connects structural, algorithmic, and cultural dimensions of invisibility. Conceptual diagrams presented herein map the flows of labor input, algorithmic mediation, and output visibility, offering a tool for understanding both micro-level work experiences and macro-level platform governance (Figures 5–7). By foregrounding the human labor behind ostensibly “automated” platforms, the study challenges prevailing assumptions of platform neutrality and exposes the asymmetries in value creation, recognition, and control.

Future research should extend these insights through longitudinal studies tracing how labor invisibility evolves, comparative analyses across Global South regions to understand context-specific dynamics, and interdisciplinary approaches combining digital humanities, labor economics, and algorithmic ethics. Investigating the intersection of algorithmic decision-making, labor rights, and social policy will illuminate pathways for more equitable, trans-

parent, and accountable digital work ecosystems.

In a forward-looking sense, the findings underscore the urgency of rethinking platform governance, labor recognition, and digital labor policies. More specifically, regulatory frameworks should require platforms to provide algorithmic transparency regarding task allocation, rating systems, and remuneration calculations. Governments and labor regulators in the Global South should establish minimum standards for platform worker protections, including access to dispute resolution mechanisms, social insurance contributions, and transparent contractual terms. In addition, platform cooperativism models and worker-led digital advocacy networks could provide alternative governance structures that increase worker participation in decision-making processes. Expanding digital literacy initiatives and affordable internet access programs would also help reduce inequalities in platform participation and algorithmic visibility. As platform economies continue to expand, understanding invisible labor is not merely an academic endeavor; it is central to ensuring that the human effort sustaining digital infrastructures is acknowledged, valued, and fairly compensated. Only by bridging conceptual insight, empirical observation, and policy action can the hidden workforce of the Global South achieve visibility, equity, and agency within the rapidly evolving landscape of platform-mediated work.

Funding

This research received no specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Institutional Review Board Statement

This study does not involve human or animal subjects, and therefore ethical approval was not required.

Informed Consent Statement

Informed consent for publication has been obtained from the participants involved in this research.

Data Availability Statement

The dataset used and analyzed during the current study is available from the corresponding author upon reasonable request.

Acknowledgments

The author acknowledges the institutional support provided by Dar es Salaam Tumaini University during the preparation of this manuscript.

Conflicts of Interest

The author declares no conflict of interest.

AI Use Statement

The author solely conceived, designed, analyzed, and authored this study and assumes full responsibility for its arguments, interpretations, and conclusions. Jenni AI was used only for limited editorial assistance, including grammar refinement and language clarity. No AI system contributed to the study design, theoretical development, analysis, interpretation of findings, or scholarly conclusions. All intellectual content and final editorial decisions remain entirely the responsibility of the author.

References

1. O'Farrell, R.; *Montagnier, P. Measuring Platform Mediated Workers*; OECD Publishing: Paris, France, 2019. [[CrossRef](#)]
2. Gussek, L.; Wiesche, M. Understanding the Careers of Freelancers on Digital Labor Platforms: The Case of IT Work. *Inf. Syst. J.* **2024**, *34*, 1664–1702. [[CrossRef](#)]

3. Jones, S.; Sen, K. The Gendered Impact of Digital Jobs Platforms: Experimental Evidence from Mozambique. *World Bank Econ. Rev.* **2025**, *39*, 143–163. [CrossRef]
4. Rogan, M.; Roeber, S.; Chen, M.A.; et al. Informal Employment in the Global South: Globalization, Production Relations, and “Precarity”. In *Research in the Sociology of Work*; Emerald Publishing: Bingley, UK, 2017; *31*, pp. 307–333. [CrossRef]
5. Gray, M.L.; Suri, S. *Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass*; Houghton Mifflin Harcourt: Boston, MA, USA, 2019.
6. Irani, L.; Silberman, M.S. Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Paris, France, 27 April–2 May 2013; pp. 611–620.
7. Bearson, D.; Kenney, M.; Zysman, J. Measuring the Impacts of Labor in the Platform Economy: New Work Created, Old Work Reorganized, and Value Creation Reconfigured. *Ind. Corp. Change* **2021**, *30*, 536–563. [CrossRef]
8. Papadimitropoulos, V. Platform Capitalism, Platform Cooperativism, and the Commons. *Rethink. Marx.* **2021**, *33*, 246–262. [CrossRef]
9. Wagh, R.K.; Packirisamy, P. Emotional Labor in the Digital Workplace: A Study of Its Effects on Job Satisfaction among Remote Professionals. *Int. J. Res. Innov. Soc. Sci.* **2025**, *9*, 4523–4529. [CrossRef]
10. Adekoya, O.; Mordi, C.; Ajonbadi, H.A.; et al. Implications of Algorithmic Management on Careers and Employment Relationships in the Gig Economy—A Developing Country Perspective. *Inf. Technol. People* **2023**, *38*, 686–713. [CrossRef]
11. Van Belle, J.P.; Howson, K.; Graham, M.; et al. Fair Work in South Africa’s Gig Economy: A Journey of Engaged Scholarship. *Digit. Geogr. Soc.* **2023**, *5*, 100064. [CrossRef]
12. Umney, C.; Stuart, M.; Bessa, I.; et al. Platform Labour Unrest in a Global Perspective: How, Where and Why Do Platform Workers Protest? *Work Employ. Soc.* **2024**, *38*. [CrossRef]
13. Alturkey, Y.A. The Gig Economy: Insights into Worker Experiences in the UK and Saudi Arabia. *Open J. Bus. Manag.* **2024**, *12*. [CrossRef]
14. Fuchs, C.; Sandoval, M. Digital Workers of the World Unite! A Framework for Critically Theorising and Analysing Digital Labour. *tripleC* **2014**, *12*, 486–563. [CrossRef]
15. Lünenborg, M.; Röttger-Rössler, B. *Affective Formation of Publics: Places, Networks, and Media*; Routledge: London, UK, 2023. [CrossRef]
16. Gao, Y. AI-Driven Transformation in Employment and Labor Income: A Global Analysis of Workforce Dynamics. *Sci. Ann. Econ. Bus.* **2025**, *72*, 165–183. [CrossRef]
17. Zandieh, A. Artificial Intelligence, Economic Inequality, and the Financial Hurdles to Sustainable Peace: Navigating the Interconnected Challenges of the 21st Century. *Soc. Sci. Humanit. Open* **2026**, *13*, 102687. [CrossRef]
18. Zhang, Z. The Transformation from Human Surplus Value to AI Algorithmic Surplus Value: Logic of the Critique of Capital in the Era of AI. *Humanit. Soc. Sci. Commun.* **2025**, *13*, 113. [CrossRef]
19. Jiang, J.; Lippert, I.; Alizadeh, A. Workers’ Perceived Algorithmic Exploitation on Online Labor Platforms. In Proceedings of the Forty-Fourth International Conference on Information Systems, Hyderabad, India, 10–13 December 2023.
20. Perrotta, C.; Selwyn, N.; Ewin, C. Artificial Intelligence and the Affective Labour of Understanding: The Intimate Moderation of a Language Model. *New Media Soc.* **2024**, *26*, 1585–1609. [CrossRef]
21. Jarrahi, M.H.; Newlands, G.; Lee, M.K.; et al. Algorithmic Management in a Work Context. *Big Data Soc.* **2021**, *8*, 1–14. [CrossRef]
22. Lee, M.K.; Kusbit, D.; Metsky, E.; et al. Working with Machines: The Impact of Algorithmic and Data-Driven Management on Human Workers. In Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems, Seoul, Republic of Korea, 18–23 April 2015; pp. 1603–1612. [CrossRef]
23. Steiger, M.; Bharucha, T.J.; Venkatagiri, S.; et al. The Psychological Well-Being of Content Moderators: The Emotional Labor of Commercial Moderation and Avenues for Improving Support. In Proceedings of the CHI Conference on Human Factors in Computing Systems, Yokohama, Japan, 8–13 May 2021; pp. 1–14. [CrossRef]
24. Shrestha, Y.R.; Ben-Menahem, S.; von Krogh, G. Organizational Decision-Making Structures in the Age of Artificial Intelligence. *Calif. Manage. Rev.* **2019**, *61*, 66–83. [CrossRef]
25. Hammerschmidt, T.; Stolz, K.; Posegga, O. Bridging the Gap: Inequalities That Divide Those Who Can and Cannot Create Sustainable Outcomes with AI. *Behav. Inf. Technol.* **2025**, *44*, 1–30. [CrossRef]
26. Hasan, T.M.R. Automation and Editorial Judgment: Assessing AI’s Influence on News Production in the Digital

- Era. *Integr. J. Res. Arts Humanit.* **2026**, 6, 39–45. [[CrossRef](#)]
27. Bantugan, B. “Artificial but Not Intelligent”: The Essence of Ground-Level Artificial Intelligence (AI) Labor Experience and the Ontology of Intelligence. *Int. J. Arts Soc. Sci.* **2026**, 9, 214–241.
28. Tarafdar, M.; Page, X.; Marabelli, M. Algorithms as Co-Workers: Human-Algorithm Role Interactions in Algorithmic Work. *Inf. Syst. J.* **2022**, 33, 232–267. [[CrossRef](#)]
29. Javokhir, M.; Ainura, I.; Tekhron, S.; et al. The Rise of Gig Economies: How Freelancing Is Reshaping Labor Markets. *Asian J. Econ. Bus. Account.* **2025**, 25, 1–18. [[CrossRef](#)]
30. Ponce Del Castillo, A., Ed. *Artificial Intelligence, Labour and Society*; European Trade Union Institute: Brussels, Belgium, 2024.
31. Gillespie, T. Content Moderation, AI, and the Question of Scale. *Big Data Soc.* **2020**, 7. [[CrossRef](#)]
32. Jia, W.; Yan, W. Labor Control in Cognitive Labor and Data Labeling: The Case of AI Company N. *J. Chin. Sociol.* **2026**, 13, 5. [[CrossRef](#)]
33. Prabha, C.S. Digital Flesh: Posthuman Embodiment, Surveillance, and the Ethics of Datafied Selves. *Glob. Humanit. Res. Forum* **2026**, 1. [[CrossRef](#)]
34. Cram, W.A.; Wiener, M.; Tarafdar, M.; et al. Examining the Impact of Algorithmic Control on Uber Drivers’ Technostress. *J. Manag. Inf. Syst.* **2022**, 39, 426–453. [[CrossRef](#)]



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