**CINEFORUM**
ISSN: 0009-7039
Vol. 66. No. 2, 2026

# Towards a Unified Legal Framework for Gig and Platform Workers in India: Employment Classification, Social Security, Algorithmic Transparency and Insolvency Protection in the Platform Economy

**Ms. Shagoofa Tilat[1], Ms. Shweta Sinha[2], Dr. Mahtab Alam[3]**
[1,2,3]Assistant Professor
[1,2,3] Bharati Vidyapeeth (Deemed to be University) Pune, Institute of Management and Research, New Delhi – 110063
[1]shagoofa.tilat@bharatividyapeeth.edu, [2]shweta.sinha@bharatividyapeeth.edu,
[3]mahtab.alam@bharatividyapeeth.edu

**Abstract**

**Background:**

India is home to the world's fastest-growing platform workforce: from 7.7 million gig workers in 2020–21, NITI Aayog projects growth to 23.5 million by 2029–30, representing 4.1% of India's total livelihood. Yet this workforce operates in a profound regulatory vacuum — misclassified as independent contractors, excluded from social security, subjected to opaque algorithmic management, and unprotected in the event of platform insolvency.

**Aim:**

This paper analyses India's emerging legal framework for gig and platform workers and proposes a Unified Gig Workers' Rights Framework (UGWRF) for India, addressing five interconnected regulatory gaps: employment status misclassification, social security exclusion, algorithmic surveillance and transparency deficits, insolvency risk, and the absence of collective bargaining rights.

**Method:**

A doctrinal legal analysis of India's Four Labour Codes (2019–2020), state-level legislation (Rajasthan 2023, Karnataka 2025, Telangana 2025, Bihar and Jharkhand 2025), and Indian case law (Ola Drivers Union v. State of Karnataka; Indian Federation of App-Based Transport Workers v. Union of India) is employed. International comparators — the EU Platform Work Directive 2024/2831 and Singapore's intermediate worker category — are used as benchmarks rather than primary objects of study. Empirical grounding is provided by the CBR-PWI 2025, the ILO (2025) sustainable social protection framework, and the longitudinal panel study of van Zoonen et al. (2025).

**Results:**

India's legal architecture is fragmented: the Social Security Code 2020 creates a welfare framework but lacks enforcement teeth; state laws are inconsistent and unevenly implemented; Indian courts have extended limited protections on a case-by-case basis under the control-and-supervision test; and algorithmic management by platforms such as Zomato, Swiggy, Ola, and Urban Company operates entirely outside any transparency obligation. The Karnataka Ordinance

2025 is the most advanced domestic instrument, introducing welfare fees of 1–5% of transaction value, human-contact requirements, and algorithmic disclosure provisions.

**Conclusion:**

A UGWRF is proposed incorporating: (1) a rebuttable presumption of platform-worker status with a statutory floor of rights; (2) a portable social security entitlement system built on the e-Shram portal and financed by mandatory platform cess contributions; (3) an Algorithmic Transparency Register mandated at the national level; and (4) recognition of gig worker collectives as bargaining parties. The framework is designed to resolve the federal fragmentation between the Social Security Code 2020 and state-level legislation, and aligns with the ILO's 2026 Convention on Decent Work in the Platform Economy.

**Keywords:** gig workers India; platform economy; Social Security Code 2020; algorithmic management; Four Labour Codes; e-Shram; Karnataka Ordinance 2025; Rajasthan Gig Workers Act

## 1. Introduction

India stands at a historic juncture in its labour market transformation. The platform economy — built on aggregators such as Zomato, Swiggy, Ola, Uber, Urban Company, and Blinkit — has absorbed millions of workers into a new form of labour that is neither employment nor self-employment in any traditional sense. According to NITI Aayog, the gig workforce grew from 7.7 million workers in 2020–21 and is projected to reach 23.5 million by 2029–30, constituting 4.1% of India's total livelihood and 6.7% of the non-agricultural workforce (NITI Aayog, 2022). A 2024 NITI Aayog report further found that 90% of gig workers lack savings and face high vulnerability to financial emergencies — a crisis of protection that the existing legal framework has not resolved.

The central legal problem is one of misclassification. Indian platforms uniformly designate their workers as independent 'partners' or 'delivery executives', thereby excluding them from the protections of the Industrial Relations Code 2020, the Code on Wages 2019, the Occupational Safety, Health and Working Conditions Code 2020, and — until the Social Security Code 2020 — all social security legislation. As the Supreme Court petition in Indian Federation of App-Based Transport Workers v. Union of India (2021, pending) contends, this classification is a legal fiction: platforms control pricing, task allocation, route selection, rating systems, and the power of deactivation — all hallmarks of an employment relationship — while disclaiming the obligations that accompany it.

The consequences extend beyond employment status. Algorithmic management systems deployed by platforms such as Zomato and Swiggy determine worker earnings, ratings, and access to work through opaque automated processes that workers cannot interrogate or contest. The Karnataka Ordinance 2025 is the first Indian legislative instrument to directly address algorithmic transparency, requiring aggregators to provide human contact points and disclose automated monitoring systems — but it operates only within Karnataka and has not yet been replicated nationally. Meanwhile, India's informal economy context creates unique challenges absent from Global North frameworks: approximately 90% of India's 610 million workers are in informal employment, and any gig worker framework must interface with this reality rather than assume a formal employment baseline.

This paper makes three original contributions. First, it provides the most comprehensive doctrinal analysis to date of India's four-layer regulatory architecture for gig workers: the Four Labour Codes, state-level legislation, judicial decisions, and the e-Shram registration system. Second, it analyses the specific algorithmic transparency and accountability gap in the Indian context, drawing on worker-specific research on platform design and contestation tools (Nagaraj Rao et al., 2024; Nagaraj Rao et al., 2025). Third, it proposes a Unified Gig Workers' Rights Framework (UGWRF) for India that resolves the federal fragmentation between central and state law, aligns with the ILO's 2026 Convention, and is calibrated to India's informal economy realities.

## 2. Methodology

This paper employs a doctrinal legal analysis methodology, the established approach in Indian labour law scholarship. The methodology integrates three components.

### 2.1 Primary Legal Analysis

The primary objects of analysis are India's Four Labour Codes (Industrial Relations Code 2020; Code on Wages 2019; Occupational Safety, Health and Working Conditions Code 2020; Code on Social Security 2020), state-level gig worker legislation (Rajasthan Platform-Based Gig Workers (Registration and Welfare) Act 2023; Karnataka Platform-Based Gig Workers (Social Security and Welfare) Ordinance 2025; Telangana Draft Gig Workers Bill 2025; Bihar and Jharkhand Bills 2025), and Indian judicial decisions including Ola Drivers Union v. State of Karnataka (Karnataka HC), Uttar Pradesh Rajya Sadak Parivahan Nigam v. Manoj Kumar (SC, on control test), and the pending Supreme Court petition in Indian Federation of App-Based Transport Workers v. Union of India (2021). The analysis employs functional comparison — examining how each instrument addresses the common regulatory problems of classification, social security, and algorithmic governance.

### 2.2 Comparative Benchmarking

International instruments are used as benchmarks to assess the adequacy of Indian law, not as primary objects of study. The EU Platform Work Directive (EU, 2024) provides the most developed rebuttable presumption model. Singapore's proposed intermediate worker category (Ang, 2024) is relevant given the comparable Asian economic context. The CBR-PWI 2025 provides systematic cross-national data against which India's regulatory progress is measured. Where Indian law falls short of international standards, this is identified as a specific gap requiring domestic reform.

### 2.3 Empirical Grounding

Empirical evidence on worker outcomes is drawn from: the ILO (2025) sustainable social protection framework; the three-wave panel study by van Zoonen et al. (2025) on algorithmic surveillance and worker compliance (N=435 European crowdworkers), used as a proxy for platform worker psychology in the absence of comparable Indian panel data; and worker-centred research on platform transparency and algorithmic contestation tools (Nagaraj Rao et al., 2024; Do et al., 2024). The absence of large-scale Indian panel studies on gig worker psychological outcomes is itself identified as a research gap requiring attention.

## 3. India's Regulatory Landscape: A Four-Layer Architecture

### 3.1 Layer 1: The Four Labour Codes — A National Framework with Implementation Gaps

India's response to the platform economy is embedded within its broader labour law consolidation. The Four Labour Codes, enacted between 2019 and 2020 and activated nationwide on 21 November 2025, consolidated 29 central labour laws. Of these, the Code on Social Security 2020 (CoSS) is the most significant for gig workers. Section 142 of the CoSS provides the first statutory definitions of 'gig worker' (a person who performs work or participates in a work arrangement and earns from such activities outside of a traditional employer-employee relationship) and 'platform worker' (a person who accesses other organisations or individuals using an online platform and provides services or works in exchange for remuneration).

The CoSS framework contains three critical design choices. First, it deliberately avoids reclassifying gig workers as employees, instead creating a third 'platform worker' category with tailored social security entitlements — following what Ang (2024) terms the coordination-risk bargain logic adapted for India's context. Second, it mandates platform contributions of 1–2% cess on each transaction to fund a Central Social Security Fund, with platforms including Zomato, Swiggy, Ola, and Uber now required to remit contributions. Third, it establishes the e-Shram portal as the registration and benefits-delivery infrastructure — as of August 2025, over 3.37 lakh platform and gig workers have registered on e-Shram.

However, Ganji (2025) identifies four critical implementation gaps. First, the CoSS is silent on portability: a worker registered in Rajasthan who moves to Delhi has no automatic entitlement transfer mechanism. Second, contribution enforcement is weak — platforms face only nominal penalties for delayed or incomplete cess remittances, and no independent audit mechanism exists. Third, the Code on Wages 2019 does not extend minimum wage protections to gig workers, leaving them exposed to sub-minimum earnings: a 2023 Fair Work India study found delivery workers on Zomato and Swiggy earn approximately ₹15,000–20,000 per month, below minimum wage for the hours worked. Fourth, the Occupational Safety Code 2020 does not cover platform workers, leaving delivery workers — who face road accident risks daily — without statutory occupational safety entitlements.

**Table 1: India's Four Labour Codes — Coverage of Gig and Platform Workers**

| Labour Code | Enacted | Gig Worker Coverage | Critical Gap for Platform Workers |
|---|---|---|---|
| Code on Wages 2019 | 2019; activated 2025 | Excluded — 'employee' definition does not cover gig workers | No minimum wage floor; delivery workers earn below statutory minimum |
| Industrial Relations Code 2020 | 2020; activated 2025 | Excluded — no 'employee' status | No right to form unions; IFAT petition pending in Supreme Court |
| OSH Code 2020 | 2020; activated 2025 | Partially excluded — 'contract worker' may apply but untested | Delivery workers face daily road risk without statutory OSH coverage |
| Code on Social Security 2020 | 2020; activated 2025 | Expressly covered — Section 142 defines gig and platform workers | Cess enforcement weak; no portability; no minimum contribution guarantee |

*Source: Compiled from Government of India (2019, 2020); Ganji (2025); ILO/ISSA/OECD (2023).*

**3.2 Layer 2: State-Level Legislation — A Progressive but Fragmented Patchwork**

In the absence of comprehensive central enforcement, Indian states have led regulatory innovation. This has produced a five-state legislative map that, while progressive, creates the very fragmentation that a unified framework must resolve.

Rajasthan was the first state to act. The Rajasthan Platform-Based Gig Workers (Registration and Welfare) Act 2023, enacted on 24 July 2023, established a welfare board, mandated unique digital IDs for all registered gig workers, created a Central Transaction Information and Management System (CTIMS) to monitor platform transactions, and levied a welfare cess of 1–2% of each transaction value payable by the aggregator. Critically, the Rajasthan Act also imposed data-sharing obligations on aggregators — a precursor to algorithmic transparency requirements. However, the change of state government in December 2023 stalled implementation, illustrating the vulnerability of state-level regulation to electoral cycles.

Karnataka's intervention is the most legally sophisticated to date. Following the Karnataka High Court's ruling in Ola Drivers Union v. State of Karnataka — in which the Court acknowledged significant economic dependence of drivers on platforms and suggested welfare entitlements may be justified even absent a traditional employment relationship — the Karnataka government enacted the Platform-Based Gig Workers (Social Security and Welfare) Ordinance 2025 in May 2025, subsequently converted to the Karnataka Platform-Based Gig Workers (Social

Security and Welfare) Act 2025 in August 2025. The Karnataka Act is notable for three innovations absent from the Rajasthan Act: (1) a higher welfare fee of 1–5% of transaction value; (2) an explicit requirement that aggregators provide workers with a human point of contact for queries — directly addressing algorithmic management opacity; and (3) algorithmic disclosure provisions requiring platforms to inform workers of automated monitoring and decision-making systems deployed against them.

Bihar (August 2025) and Jharkhand (August 2025) have enacted similar legislation, while the Telangana Draft Gig Workers Bill 2025 (Telangana Government, 2025) remains pending. Together, these state laws cover workers in five of India's major gig economy markets — but leave workers in Delhi, Maharashtra, Tamil Nadu, West Bengal, and other large states without state-level protection.

**Table 2: Comparative State Legislation on Gig Worker Protection in India**

| State | Legislation | Year | Welfare Fee | Key Innovation | Status 2025 |
|---|---|---|---|---|---|
| Rajasthan | Platform-Based Gig Workers (Reg. & Welfare) Act | 2023 | 1–2% per transaction | CTIMS data monitoring; unique worker IDs | Implementation stalled (political change) |
| Karnataka | Platform-Based Gig Workers (Social Security & Welfare) Ordinance/Act | 2025 | 1–5% per transaction | Human contact mandate; algorithmic disclosure | Enacted; most progressive |
| Bihar | Gig Workers Welfare Act | 2025 | TBC | Social security fund; registration | Enacted Aug 2025 |
| Jharkhand | Gig Workers Welfare Act | 2025 | TBC | Social security fund; registration | Enacted Aug 2025 |
| Telangana | Draft Gig Workers Bill (Reg., Social Security & Welfare) | 2025 | TBC | Comprehensive registration and welfare | Draft — pending enactment |

*Source: Compiled from Telangana Government (2025); Ganji (2025); PRS Legislative Research (2025).*

### 3.3 Layer 3: Indian Case Law — Judicial Engagement with Platform Classification

Indian courts have engaged with gig worker classification primarily through two doctrinal routes: the control-and-supervision test derived from traditional employment law, and the economic dependence test that some courts have begun to apply in the platform context. The results have been inconsistent, reflecting the binary nature of Indian employment law that the Four Labour Codes have not yet resolved.

The most significant judicial development is the Karnataka High Court ruling in Ola Drivers Union v. State of Karnataka, in which the Court held that platform drivers were economically dependent on Ola in a manner that justified welfare entitlements, even if they did not meet the formal definition of 'employees'. This reasoning directly informed the Karnataka Act 2025. In contrast, the Madras High Court, in a case involving Swiggy delivery partners, declined to classify them as 'workmen' under the Industrial Disputes Act, emphasising the absence of direct supervision and noting that workers retained the right to accept or decline deliveries.

The most consequential pending litigation is Indian Federation of App-Based Transport Workers v. Union of India, filed before the Supreme Court of India in September 2021. The petition, brought by a union representing Uber, Ola, Swiggy, and Zomato workers, directly challenges the constitutionality of excluding gig workers from statutory employment protections. The Supreme Court's eventual ruling — which will apply nationwide — will determine whether Section 142 of the Social Security Code is constitutionally sufficient, or whether a deeper reclassification of gig workers as employees is required.

## 4. Algorithmic Management in India's Platform Economy: Surveillance, Opacity, and the Transparency Gap

### 4.1 How Indian Platforms Deploy Algorithmic Management

India's major platform companies — Zomato, Swiggy, Ola, Uber, and Urban Company — manage their workforces entirely through algorithmic systems. These systems determine task allocation (which delivery order is assigned to which worker), dynamic pricing (surge fares for cab drivers; peak pay for delivery workers), performance ratings (star ratings visible to customers that affect future task allocation), and deactivation (suspension or permanent removal of worker accounts for policy violations or low ratings). Workers have no visibility into how these algorithms work, no mechanism to contest algorithmic decisions, and no recourse when accounts are deactivated.

The opacity of these systems produces the effects documented by van Zoonen et al. (2025): algorithmic surveillance undermines trust ($\beta = -0.31$) and fairness perceptions ($\beta = -0.28$) while increasing privacy concerns ($\beta = +0.34$), reducing compliance and generating resistance. In the Indian context, this resistance takes specific forms: Zomato and Swiggy delivery workers in multiple cities have organised work stoppages contesting algorithmic fare revisions; Ola drivers in Bengaluru have coordinated log-off campaigns to manipulate surge pricing algorithms; and Uber drivers in Delhi have publicly documented the 'acceptance rate trap' — a system that penalises drivers for declining rides while providing no mechanism to flag unsafe or uneconomical assignments.

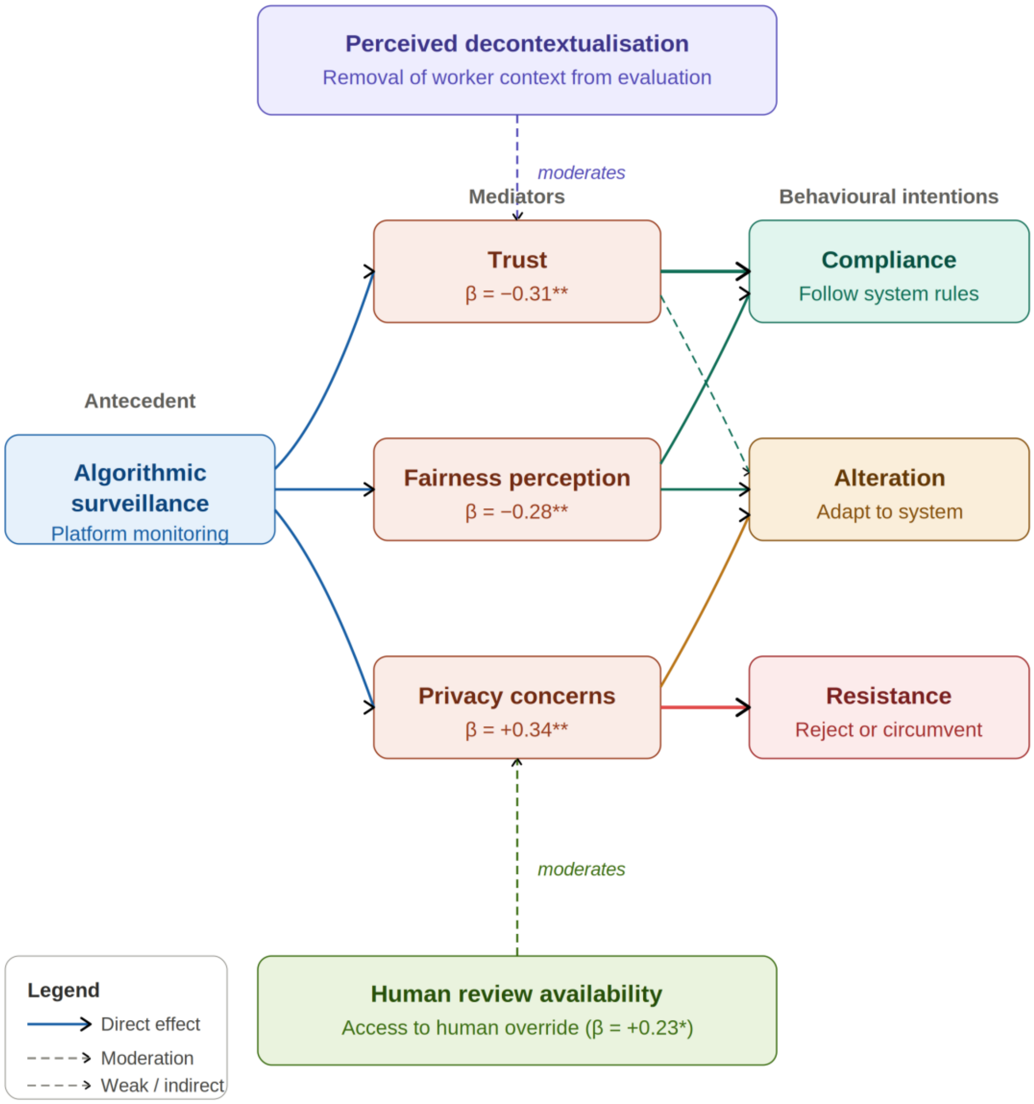
Lee (2025) frames the core problem as an accountability vacuum: when an algorithm functions as the manager, no legal mechanism in India currently assigns liability for arbitrary or discriminatory algorithmic decisions to any identifiable legal actor. The Social Security Code 2020 is silent on algorithmic governance. The Four Labour Codes collectively contain no algorithmic transparency obligation. The Digital Personal Data Protection Act 2023, while relevant to data processing, does not specifically address algorithmic management in the employment context.

**Table 3: Mechanisms of Algorithmic Surveillance Effects on Worker Behaviour**

| Mechanism | Effect on Trust | Effect on Fairness Perception | Effect on Privacy Concerns | Resulting Compliance Intention |
|---|---|---|---|---|
| Direct algorithmic surveillance | Negative (β = −0.31)** | Negative (β = −0.28)** | Positive (β = 0.34)** | Reduced compliance |
| High perceived decontextualisation | Strongly negative (β = −0.47)** | Strongly negative (β = −0.42)** | Moderately positive (β = 0.19)* | Resistance likely |
| Low perceived decontextualisation | Weakly negative (β = −0.12) n.s. | Not significant | Strongly positive (β = 0.41)** | Adaptive compliance |
| Human review availability | Positive (β = 0.23)* | Positive (β = 0.31)** | Negative (β = −0.18)* | Enhanced compliance |

*Note: **p < 0.01, *p < 0.05; n.s. = not significant. Three-wave panel, N = 435 European online crowdworkers (van Zoonen et al., 2025, Human Relations). Applied to India's platform context as the closest available empirical proxy pending Indian panel data.*

**CINEFORUM**
ISSN: 0009-7039
Vol. 66. No. 2, 2026




*Source: van Zoonen et al. (2025, Human Relations). Applied to India's platform economy context. **p < 0.01, *p < 0.05.*

**Figure 1: Conceptual Model of Algorithmic Surveillance and Worker Compliance**

**4.2 The Transparency Gap — and How the Karnataka Act Begins to Fill It**

Prior to the Karnataka Ordinance 2025, India had no legal instrument requiring platform transparency in algorithmic management. The Karnataka Act's two key provisions — the human contact mandate and the algorithmic disclosure requirement — are the first domestic steps toward closing this gap. Rosin and Parviainen (2025) assess the parallel EU Directive 2024/2831 mechanism (Article 9) and find that disclosure without audit access is insufficient: workers are told that an algorithm exists and affects them, but cannot test or challenge the system. The Karnataka Act faces the same limitation.

Worker-led tools developed in other contexts offer a complementary approach. Nagaraj Rao et al. (2024) document how rideshare workers, given structured access to their own platform data, can identify transparency gaps — including algorithm-driven fare suppression and discriminatory task allocation — and translate these into specific policy recommendations. FareShare (Nagaraj Rao et al., 2025), which automates lost-wage calculation for deactivated drivers, demonstrates that contestation tools are both technically feasible and legally significant. Do et al. (2024) show that sousveillance tools — enabling workers to monitor and record platform behaviour — can shift the information asymmetry that currently favours platforms entirely. The UGWRF proposed in Section 5 incorporates these worker-side transparency mechanisms as a required element of any national algorithmic governance framework.

Abraha (2023) notes that GDPR-equivalent data protection law is the current primary legal domain engaging algorithmic management in Europe. India's Digital Personal Data Protection Act 2023 creates a broadly analogous framework, but its employment-context application to gig worker algorithmic management has not yet been tested. This represents a significant unexplored avenue for Indian regulatory development.

## 5. The Informal Economy Interface: India's Unique Regulatory Challenge

Any discussion of gig worker regulation in India must confront a structural reality absent from Global North frameworks: India's gig economy does not sit above a formal employment base — it sits adjacent to the world's largest informal economy. Of India's approximately 610 million workers, around 90% are in informal or unorganised employment (ILO, 2025). Gig work, for millions of workers, is not a departure from stable formal employment but a step towards semi-formalisation from daily-wage construction work, informal retail, or agricultural labour.

This informal economy interface has three specific implications for regulatory design. First, the e-Shram portal — the intended backbone of the CoSS gig worker framework — was designed as an unorganised worker registry covering domestic workers, construction workers, and agricultural labourers. As of August 2025, only 3.37 lakh platform workers have registered despite an estimated 12+ million platform workers being active. The low registration rate reflects a digital literacy barrier: many platform workers, particularly in Tier-2 and Tier-3 cities, lack the smartphone literacy or documentation (Aadhaar linkage) to self-register. The UGWRF must address this through assisted registration mechanisms and aggregator-mediated enrolment.

Second, the cess-based financing model assumes a minimum transaction volume that generates meaningful contribution obligations. For workers who use multiple platforms simultaneously — a common strategy among delivery workers to hedge income risk — the cess is fragmented across platforms and no single platform bears meaningful contribution liability. A unified per-worker account that aggregates contributions across platforms, on the model of Australia's superannuation system or France's Compte Personnel de Formation, is required.

Third, the informal economy context means that gig work regulation must avoid the formalisation trap — imposing compliance costs so high that platforms either exit the market or reclassify workers as genuinely self-employed through labour-only contracting. The Rajasthan Act's 1–2% cess rate and the Karnataka Act's 1–5% range represent calibrations of this balance. The UGWRF proposes a differentiated cess rate (2% for large platforms; 1% for platforms below a transaction threshold) to prevent regulatory arbitrage.

## 6. Towards a Unified Gig Workers' Rights Framework (UGWRF) for India

### 6.1 Foundational Principles

The UGWRF rests on four principles drawn from the analysis above, from international best practice, and from India's constitutional commitment to dignity of labour under Articles 21, 23, and 43 of the Constitution.

**Principle 1: Functional Status Determination with a Statutory Floor.** A rebuttable presumption of platform-worker status — distinct from both employee and independent contractor — should apply to any person who regularly provides labour through a digital platform that controls pricing, task allocation, or access to customers. Following Migliora (2026), this presumption should be accompanied by a statutory floor of rights (minimum per-task payment, accident insurance, data access) applicable regardless of classification outcome. This resolves the binary trap in current Indian law while avoiding the reclassification risks that platforms resist.

**Principle 2: Portable Social Security via a National Gig Worker Account.** Each registered gig worker should have a single National Gig Worker Account (NGWA) linked to their Aadhaar number and hosted on the e-Shram portal. All aggregators making payments to the worker contribute cess to the NGWA at a differentiated rate (2% for large platforms; 1% for platforms below ₹100 crore annual gig-transaction revenue). Benefits are portable across states and platforms, addressing the fragmentation identified by Ganji (2025) and the ILO's (2025) call for sustainable social protection.

**Principle 3: National Algorithmic Transparency Register.** A national Algorithmic Transparency Register should be maintained by a designated Digital Labour Ombudsman, requiring all platforms with more than 10,000 registered gig workers to publish: the purpose and design of each algorithmic system affecting worker pay, task allocation, or account status; the inputs and parameters decisive to outcomes; and the availability of human review. This extends the Karnataka Act's pioneering provisions nationally, and aligns with Privacy International's (2026) three-part framework and Lee's (2025) call for a legal duty of algorithmic accountability.

**Principle 4: Recognition of Gig Worker Collectives.** Gig worker collectives and associations — including the Indian Federation of App-Based Transport Workers and state-level union bodies — should be formally recognised as bargaining parties under a new chapter of the Industrial Relations Code 2020. Collective bargaining agreements with recognised gig worker collectives should be deemed binding on platforms. This addresses the current exclusion of gig workers from collective labour rights without requiring reclassification as employees.

### 6.2 Framework Components

**Table 4: Unified Gig Workers' Rights Framework (UGWRF) for India**

| Domain | UGWRF Standard | Legal Instrument | Model Provision | Addresses Gap |
|---|---|---|---|---|
| Employment Status | Rebuttable platform-worker presumption + statutory floor of rights | Amendment to CoSS 2020 + new Schedule of Floor Rights | Karnataka Ordinance 2025; Migliora (2026) | Misclassification; binary trap |
| Social Security | National Gig Worker Account (NGWA) — portable, Aadhaar-linked, multi-platform | Amendment to CoSS 2020 Section 142; e-Shram portal upgrade | Rajasthan CTIMS; Australian superannuation model | Portability gap; fragmented cess |
| Minimum Earnings | Per-task minimum payment equal to applicable state minimum wage for hours worked | Amendment to Code on Wages 2019 — new Schedule for platform work | EU Directive 2024/2831 minimum remuneration provisions | Wage floor exclusion |
| Algorithmic Transparency | National Algorithmic Register + personalised decision explanations + audit access | New Chapter in CoSS 2020; Digital Labour Ombudsman | Karnataka Act 2025 disclosure provisions; Lee (2025) | Algorithm opacity; no contestation |
| Collective Bargaining | Recognition of gig worker collectives as statutory | Amendment to Industrial Relations Code 2020 | ILO Convention Nos. 87 & 98; IFAT Supreme Court petition | Collective rights exclusion |

| | | | | |
|---|---|---|---|---|
| | bargaining parties | | | |
| Insolvency Protection | Mandatory Platform Protection Fund; worker wage claims rank as priority creditors | New provision in CoSS 2020; Insolvency and Bankruptcy Code amendment | EU worker protection fund models | No platform insolvency protection |

### 6.3 Addressing the Federal Fragmentation Problem

The UGWRF must navigate India's constitutional division of labour between the Union and states. Labour is a Concurrent List subject (Entries 22–24, List III, Schedule VII), enabling both Parliament and state legislatures to legislate. The Four Labour Codes represent central legislation; state gig worker laws operate under residuary and concurrent powers. The result is a patchwork in which a delivery worker in Karnataka enjoys welfare fees, algorithmic disclosure rights, and human contact access, while an identical worker in Delhi or Maharashtra has no state-specific protection beyond the CoSS national framework.

The UGWRF proposes resolution through a Model Gig Workers' Protection Act — drafted at the central level as a model statute under the Concurrent List — that states can adopt with modifications, in the manner of the Model Shops and Establishments Act. This preserves state flexibility (the Karnataka Act's higher fee rates can be maintained) while ensuring minimum national standards. The National Gig Worker Account infrastructure, as a central government digital public good built on the e-Shram and Aadhaar ecosystem, ensures portability across state boundaries regardless of which state law applies.

## 7. Conclusion and Policy Recommendations:

India's gig economy is no longer a peripheral phenomenon — it is a structural feature of the national labour market, projected to employ 23.5 million workers by 2030. This paper has demonstrated that the regulatory architecture governing these workers is characterised by four interlocking failures: a classification framework that creates a third category without a third set of enforceable rights; a social security system whose portability and enforcement gaps render it inadequate; an algorithmic management regime operating in near-total opacity; and a federal structure that produces radically unequal protection depending on which state a worker happens to operate in.

The Karnataka Platform-Based Gig Workers Act 2025 represents the most significant domestic legislative innovation. Its algorithmic disclosure provisions and human-contact mandate are the first direct Indian engagement with algorithmic governance of gig workers. The pending Supreme Court ruling in Indian Federation of App-Based Transport Workers v. Union of India will determine the constitutional floor below which no legislative response can fall. Together, these developments create the conditions for a transformative national framework — if Parliament acts before further state-by-state fragmentation entrenches itself.

The proposed Unified Gig Workers' Rights Framework synthesises the best of India's state-level innovations with international benchmarks drawn from the EU Directive 2024/2831 (EU, 2024), the ILO's (2025, 2026) conventions, and the insights of worker-centred research (Nagaraj Rao et al., 2024, 2025; Do et al., 2024; Hsieh et al., 2025). It is calibrated to India's informal economy realities, its digital public goods infrastructure (Aadhaar, e-Shram), and its constitutional structure.

**Policy Recommendations:**

- For Parliament: Amend the Code on Social Security 2020 to introduce the National Gig Worker Account, a national Algorithmic Transparency Register, and recognition of gig worker collectives as bargaining parties. Amend the Code on Wages 2019 to extend minimum wage protection to platform work.
- For the Ministry of Labour and Employment: Draft a Model Gig Workers' Protection Act under the Concurrent List for adoption by state governments, establishing national minimum standards on algorithmic transparency, welfare fees, and contestation rights.
- For the Ministry of Electronics and Information Technology: Upgrade the e-Shram portal to support multi-platform NGWA accounts, assisted registration for low-literacy workers, and aggregator-mediated enrolment. Issue a notification clarifying the application of the DPDPA 2023 to algorithmic employment decisions.
- For State Governments: Adopt algorithmic disclosure provisions modelled on the Karnataka Act 2025 before the Model Act is enacted. Prioritise assisted e-Shram registration in Tier-2 and Tier-3 cities where low digital literacy remains a barrier.
- For Platforms (Zomato, Swiggy, Ola, Uber, Urban Company): Voluntarily publish algorithmic transparency disclosures and establish internal grievance mechanisms for algorithmic deactivations pending mandatory requirements. Support gig worker data-sharing through tools modelled on Gig2Gether (Hsieh et al., 2025).
- For the Supreme Court of India: In Indian Federation of App-Based Transport Workers v. Union of India, consider the UGWRF's functional status determination approach as a constitutionally proportionate resolution that avoids binary reclassification while guaranteeing enforceable rights.
- For the ILO: In finalising the 2026 Convention on Decent Work in the Platform Economy, recognise India's cess-based model as a viable Global South implementation pathway and incorporate the National Gig Worker Account concept as a recommended portability mechanism for emerging economies.

**References:**

Abraha, H. (2023). Regulating algorithmic employment decisions through data protection law. European Labour Law Journal, 14(2), 231–258. https://doi.org/10.1177/20319525231167317

Alauddin, F. D. A., Aman, A., Ghazali, M. F., & Daud, S. (2024). The influence of digital platforms on gig workers: A systematic literature review. Heliyon, 10(24), e41491. https://doi.org/10.1016/j.heliyon.2024.e41491

Ang, L. (2024). Classifying gig workers under the coordination-risk bargain: A Singapore perspective.

Centre for Business Research, University of Cambridge. (2025). Centre for Business Research Platform Work Index (CBR-PWI) 2025. https://www.repository.cam.ac.uk/items/bb70e966-6c67-482a-9186-7bf655731c78

Do, K., De Los Santos, M., Muller, M., & Savage, S. (2024). Designing sousveillance tools for gig workers. Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI '24). https://doi.org/10.48550/arXiv.2403.09986

European Union. (2024). Directive (EU) 2024/2831 of the European Parliament and of the Council of 23 October 2024 on improving working conditions in platform work. Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L_202490196

Ganji, A. (2025). An assessment of social security frameworks for platform-based gig workers in India.

Government of India. (2019). Code on Wages, 2019 (No. 29 of 2019). Ministry of Law and Justice, New Delhi.

Government of India. (2020a). Industrial Relations Code, 2020 (No. 35 of 2020). Ministry of Law and Justice, New Delhi.

Government of India. (2020b). Occupational Safety, Health and Working Conditions Code, 2020 (No. 37 of 2020). Ministry of Law and Justice, New Delhi.

Government of India. (2020c). Code on Social Security, 2020 (No. 36 of 2020). Ministry of Law and Justice, New Delhi.

Hsieh, J., Zhang, A., Surati, S., Xie, S., Ayala, Y., Sathiya, N., Kuo, T.-S., Lee, M. K., & Zhu, H. (2025). Gig2Gether: Data-sharing to empower, unify and demystify gig work. Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI '25), Yokohama. https://doi.org/10.1145/3706598.3714398

Indian Federation of App-Based Transport Workers v. Union of India, Writ Petition (Civil) No. 1068/2021 (Supreme Court of India, pending).

International Labour Organization. (2025). Sustainable social protection for workers in the gig and platform economy. Geneva: ILO.

International Labour Organization. (2026). Decent work in the platform economy: Draft Convention and Recommendation. International Labour Conference, 114th Session. https://www.ilo.org/international-labour-conference

International Labour Organization, International Social Security Association, & Organisation for Economic Co-operation and Development. (2023). Providing adequate and sustainable social protection for workers in the gig and platform economy. Geneva: ILO.

Karnataka Government. (2025). Platform-Based Gig Workers (Social Security and Welfare) Ordinance/Act, 2025. Government of Karnataka.

Lee, D. S. (2025). Governing global gig platforms in the age of AI: When the manager is an algorithm. Vanderbilt Journal of Entertainment and Technology Law.

Migliora, G. (2026). Protecting workers irrespectively of their employment status. European Labour Law Journal. Advance online publication.

Muldoon, J., & Sun, P. (2024). The global gig economy: How transport platform companies adapt to regulatory challenges. Industrial Law Journal, 53(3), 481–504. https://doi.org/10.1093/indlaw/dwae010

Nagaraj Rao, V., Dalal, S., Agarwal, E., Calacci, D., & Monroy-Hernández, A. (2024). Rideshare transparency: Translating gig worker insights on AI platform design to policy. Proceedings of the ACM on Human-Computer Interaction. https://doi.org/10.1145/3711059

Nagaraj Rao, V., Dalal, S., Schwartz, A., Liaqat, A., Calacci, D., & Monroy-Hernández, A. (2025). FareShare: A tool for labor organizers to estimate lost wages and contest arbitrary AI and algorithmic deactivations. arXiv:2505.08904. Accepted CSCW 2026. https://doi.org/10.48550/arXiv.2505.08904

NITI Aayog. (2022). India's booming gig and platform economy: Perspectives and recommendations on the future of work. New Delhi: NITI Aayog.

Ola Drivers Union v. State of Karnataka (Karnataka High Court).

Privacy International. (2026, March 25). Transparency and explainability for algorithmic decisions at work. https://www.privacyinternational.org/long-read/5752/transparency-and-explainability-algorithmic-decisions-work

Rajasthan Government. (2023). Rajasthan Platform-Based Gig Workers (Registration and Welfare) Act, 2023. Government of Rajasthan.

Rosin, A., & Parviainen, H. (2025). Improving the transparency of algorithmic management in platform work: The role of the Platform Work Directive. European Labour Law Journal. https://doi.org/10.1177/20319525251375023

Telangana Government. (2025). The draft Telangana Gig and Platform Workers' (Registration, Social Security and Welfare) Bill, 2025. PRS Legislative Research. https://prsindia.org/bills/state-bills van Zoonen, W., von Bonsdorff, M. E., & van der Heijden, B. I. J. M. (2025). Algorithmic surveillance and workers' compliance: The role of trust, privacy concerns, and fairness in online crowdwork. Human Relations. https://doi.org/10.1177/00187267241258975

Zhang, X. (2025). The rise of algorithmic management and implications for work and organisations. New Technology, Work and Employment. https://doi.org/10.1111/ntwe.12343