
LABOUR RIGHTS IN THE DIGITAL ECONOMY: NAVIGATING AI INTEGRATION, WORKPLACE PROTECTION, AND THE GIG REVOLUTION

Vaibhav Pandey¹ & Astha Srivastava²

ABSTRACT

India's swift shift towards digitization has impacted the labour markets, the emergence of new categories of work, and the obsolescence of traditional employment and work models. This paper explores the interfacing nexus of A.I., digital platforms and labour within the changing economy of India. Currently, the digital economy in India is 11.74% of G.D.P., accounting for ₹31.64 lakh crores (2022-23) with 14.67 million digitised economy workers who are five times more productive than traditional sectors within the economy. However, critically, this transition has caused gaps in labour protections that adversely affect disadvantaged and marginalised groups, specifically women, persons living with disabilities, and gig workers (a number predicted to rise to 23.5 million by 2029-30). By conducting an empirical, textual and contextual review of existing laws and standards, as well as evidence-based studies, this paper highlights systemic and structural issues surrounding worker rights in the digital economy and the relative absence of regulation and the need for broader reform agenda.

The study uses a mixed methods research paradigm, which draws on doctrinal analysis, comparative legal analysis, and empirical analysis from platforms workers, enforcement agencies and reports. The study finds that even though the Code on Social Security 2020 is the first to expressly acknowledge gig and platform workers in the Indian context of labour, there are barriers to implementation that leave millions of workers unprotected. The study proposes ways to create an effective framework for digital labour rights that allows for innovation in a manner that does not impede protections.

Keywords: Digital labour rights, artificial intelligence, gig economy, platform workers, workplace harassment

¹ Student at Amity University Lucknow Campus

² Assistant Professor at Amity University Lucknow Campus

I. Introduction

The incorporation of digital technologies into labour markets has opened new horizons of possibility, while simultaneously presenting serious challenges to worker protections in India. As the third largest digitalised economy in the world, India is currently at a pivotal moment which actions technological progress and the protection of essential labour rights. The growth trajectory of the digital economy will, by 2029-30, contribute around 20% of national income thereby outpacing the regulatory frameworks that were developed for traditional employment relations³.

Such disruption is occurring on multiple fronts: artificial intelligence systems are increasingly governing hiring, performance assessments and termination decisions; platform-based work relationships disrupt the traditional link between employers and employees; and digital work arrangements transcend geographical boundaries but establish new forms of worker vulnerability. The COVID-19 pandemic provided conditions for these dynamics to emerge: 34% indicated that they had experience sexual harassment while working from home⁴. This suggests there are opportunities that emerge through digital transformations while also introducing new risks.

The purpose of this study is to examine three aspects: first, to assess the adequacy of the legal protection for digital workers, second, to identify a range of specific vulnerabilities for already marginalized groups involved in digital work, and lastly to formulate comprehensive policy recommendations to further promote adherence to international best practices. This study is timely because a regime change is being undertaken in India, replacing 29 existing laws with four consolidated Labour Codes, affording the opportunity to entrench protections for digital workers into the labour law framework of the country⁵.

The study employs a triangulation methodology using doctrinal legal analysis, empirical sources of government and industry practitioners, comparative analyses of international frameworks, and perspectives from stakeholders including worker organizations,

³“Future Ready: India’s Digital Economy to Contribute One-Fifth of National Income by 2029-30”<https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2097125> (last visited on 11 October 2025)

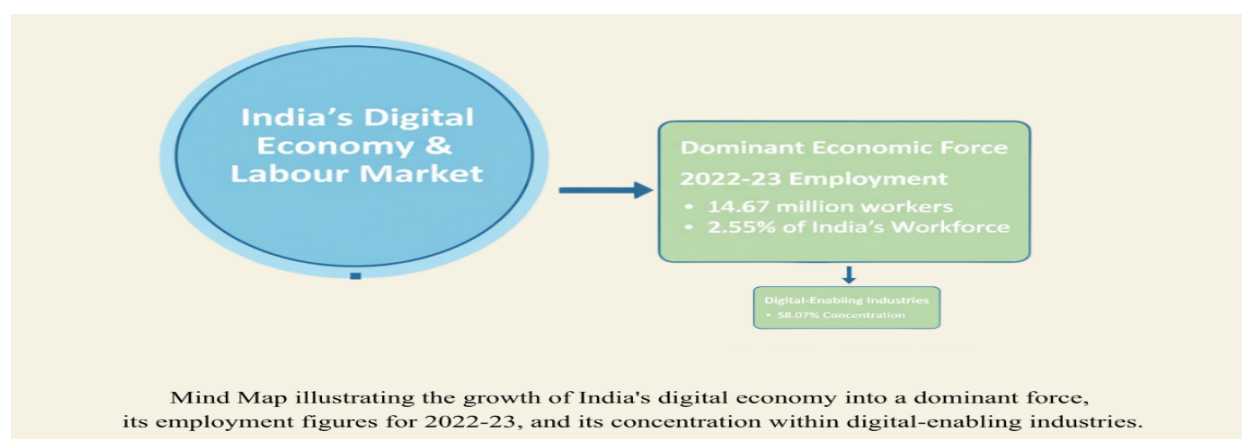
⁴Selma Kirana Haryadi, “Sexual Harassment at Workplace Moves to the Virtual World amid the Pandemic” (*Magdalene.co*, July 14, 2023) <https://magdalene.co/story/sexual-harassment-at-workplace-moves-to-the-virtual-world-amid-the-pandemic/> (last visited on 11 October 2025)

⁵Prime Minister Narendra Modi, “New Labour Code for New India” (2020) book https://labour.gov.in/sites/default/files/labour_code_eng.pdf (last visited on 11 October 2024)

platform providers, and regulators. The theoretical framework draws upon decent work principles from the International Labour Organization, constitutional guarantees of inclusion and dignity, and emerging jurisprudence on digital rights.

II. The Digital Economy and Labour Law Framework

India's digital economy has moved from being a developing economy to being a key economic actor that has disrupted labour markets and the labour force as a whole. In 2022-23, the digital economy employed 14.67 million people (2.55% of the total workforce), with the employment generated from digital-enabling industries accounting for 58.07%. The concentration of employment in digital-enabling industry is not only a signal of specialization in these industries, but also an indication of potential integration with society and the economy in a more general sense⁶.



The definitional issues surrounding grouped digital workers indicate a broader definitional gap within labour law generally. The Code on Social Security 2020⁷ refers to gig workers as those who undertake work in the absence of the traditional employer-employee relationship as defined by the ESC while platform workers, were defined differently, being affected through a digital platform to obtain a defined service. It is concerning to see more undefined terminology have been inserted into the space in the latest code (for example using the term "work arrangement" instead of "establishment") which will create a legal ambiguity

⁶Indian council for research on international economic relations, *Estimation and Measurement of India's Digital Economy* (Indian Council for Research on International Economic Relations (ICRIER) 2025) https://www.meity.gov.in/writereaddata/files/Report_Estimation_Measurement.pdf (last visited on 12 October 2025)

⁷The Code on Social Security 2020, No. 36 of 2020, India Code (2020)

that might result in unintended positive outcomes for workers, since labour law generally favours employment classification.

The principles created for labour law usually derive from the traditional employer-employee relationship in the industrial era and do not capture the fluid borders of digital work. The binary nature of employment relationships does not capture the kinds of more subtle control that digital platforms exert over their serviced workers, like those who work for Uber. Although Uber states that their drivers are independent contractors, Uber retains significant control over pricing and routes, as well as other performance measures. The UK Supreme Court recently reached a conclusion, in the case of employment status recognition *Uber BV v Aslam* (2021)⁸, that platform drivers are "workers" (to which they are entitled to at least minimum wage and holiday pay), which is beneficial in resolving employment classification dilemmas.

When conducting digital work, it creates jurisdictional complications since those digital platforms are cross-border and those working for or through that platform are subject to national laws. The Indian legal system is grappling with this complex situation, attempting to protect workers and engage businesses without interfering in legitimate business activities. The extra-territorial applications of labour laws specifically arise, in cases in which Indian workers provide work to global platforms for clients residing in other jurisdictions.

International labour standards stem from a broader family of ILO conventions and offer normative support for national policies. India has ratified 6/8 of the core ILO Conventions, including those on core principles of forced labour, equal remuneration, and non-discrimination. Nevertheless, the organizational rights of workers could be circumscribed due to the conventions on freedom of association and collective bargaining that India has not ratified. This is important in considering conditions that are characteristic of digital work and where traditional structures of unions may not be possible or appropriate⁹.

III. Artificial Intelligence and Worker Rights

Utilizing artificial intelligence (AI) in the workplace could be the most significant and transformative change in employment relations since industrialization. For example, in India,

⁸*Uber BV v Aslam* [2021] UKSC 5

⁹ PIB, "ILO Fundamental Conventions" <https://www.pib.gov.in/newsite/PrintRelease.aspx?relid=168889> (last visited on 12 October 2025)

92% of knowledge workers utilize some type of AI at work, well above the global average of 75%. The proliferation of workplace AI appears to be occurring simultaneously across multiple sectors and at various rates of adoption. Importantly, this is happening despite a collective lack of regulatory oversight of technology's impact on worker rights¹⁰.

The hiring process is one of the best examples showing how AI has a dual use. AI-based hiring processes can be more efficient and reduce bias, but systems built using AI primarily apply existing bias and potentially enhance discriminatory practices. Amazon utilized an AI-based hiring algorithm which ultimately discriminated against women. Biased applicants were used as training data which further replicated systemic bias in the algorithm through adoption. In India, systemic disparity of employment opportunities exists based on caste, gender, and regional differences. AI-based systems therefore present a risk that the underlying disparities could become technologically entrenched and militarized for scale.

Algorithmic management expands the application of AI from hiring to continuous employment relationships. Workers on platforms take all forms of work versus traditional employers will experience AI systems that assign work, evaluate that work, and determine payment without notice or right of appeal. Delivery workers have suggested that algorithmic direction has reduced compensation or led to accounts being de-activated without notice or right of appeal. This level of opacity goes against the notion of procedural fairness and takes away the ability of workers to know, and ultimately challenge, the decisions that affect their ability to provide for their family.¹¹

The right to explanation in AI-based decision-making becomes a principle for worker protection. The European Union's General Data Protection Regulation recognizes such a right for automated decision-making, while India has no comparable right. Workers in positions where AI systems are determining action against them should be informed of the criteria for decisions, data sources, and justification for the decision.

The overlap of digital information acquisition, privacy and surveillances, and artificial

¹⁰Ishan Patra, "92% Indian knowledge workers embrace AI adoption: Microsoft and LinkedIn report" <https://yourstory.com/2024/05/indias-knowledge-workers-lead-ai-adoption-92-percent-use-at-work> (last visited on 12 October 2025)

¹¹None Zaker Ul Oman, None Ayesha Siddiqua and None Ruqia Noorain, "Artificial Intelligence and Its Ability to Reduce Recruitment Bias" (2024) 24 World Journal of Advanced Research and Reviews 551 <https://doi.org/10.30574/wjarr.2024.24.1.3054> (last visited on 13 October 2025)

intelligence capabilities create new concerns for workers in AI-facilitated workplaces. Digital platforms and AI systems constantly and automatically obtain vast amounts of information on workers, including location information/surveillance, metrics on workplace performance and perceived patterns of behaviours – usually without explicit consent or even any policy surrounding how decisions are informed with this acquired information¹². In instances where AI systems can measure productivity or provide real-time feedback on a worker's behaviour, the line between acceptable monitoring of performance, and unacceptable surveillance can become blurred. For example, some Amazon warehouse workers report feeling pressure to perform work without consideration of basic human demands, like frequent use of an available bathroom, while also being surveilled for productivity demands.

Bias, discrimination and accountability frameworks are notable areas for regulation. Existing anti-discrimination laws based on a human--decision-making context do not ensure fairness for the potential outcomes of the algorithmic systems that also use human bias but can rely on neutral claims of criteria. The challenge will be to develop technical standards for AI to maintain fairness while also working efficiently and fairly as businesses should operate for legitimate purposes.

Mid-career professionals (ages 35-54) are embracing AI technologies faster than their younger counterparts (36 percent vs. 49 percent). Findings suggest that technology acceptance is more affected by experience in the workplace than age. This counters patterns observed in the context of the digital divide and raises questions about whether we should be targeting all workers with a resource to become AI literate.¹³

IV. Rights Violations in Digital Workplaces

Regardless of verbal and written claims of flexibility and empowerment, online workplaces often function as sites of deepened labour exploitation. Research has shown systematic violations across a range of worker rights in labour markets which are facilitated by the uncertain employment status of workers in the gig economy and the lack of any binding

¹²“Artificial Intelligence in Indian Workplaces: Diversity Law Issues from Hiring to Exits”<https://www.ibanet.org/artificial-intelligence-in-indian-workplaces> (last visited on 13 October 2025)

¹³Ibef, “Artificial Intelligence (AI) Adoption Spreads across Sectors as Indian Workforce Seeks Upskilling”*India Brand Equity Foundation* (August 20, 2025) <https://ibef.org/news/artificial-intelligence-ai-adoption-spreads-across-sectors-as-indian-workforce-seeks-upskilling> (last visited on 13 October 2025)

enforceability.

Wage theft and pay irregularity are rife against all types of digital work imaginable. A Fair Work India study showed gig workers for a delivery app working for ₹15,000-20,000 a month, which simply is not a minimum course of pay for time worked¹⁴. In addition, that research indicated that greater than 70% of gig workers dealing with delivery gigs reported they frequently struggle to make ends meet each cycle. Not only does pay end up being irregular, the gig worker is paying commissions to the platform up to 34%, exacerbating their income vulnerability further because a gig worker has no traditional employer-employee relationship to fall back on when their pay is compromised, and platform work relates to them as independent contractors who have no access to pay protections¹⁵.

The extent of surveillance in digital workspaces has expanded to new heights, due in part to AI that continually sustains the behaviours of the worker. Amazon's warehouses monitor how task owners meet their productivity targets for the platform, practically eliminating any form of time off during the labour periods. Delivery platforms, on the other hand, have access to real-time location and entire patterns of movement the entire time a worker is on shift. Surveillance occurs outside of work time too, with platforms having access to data retention on a worker their activities, social contacts and personal situations. While workers are under surveillance, the psychological burdens of constant monitoring cause workplace stress and anxiety. To put it mildly, existing policies on privacy do not offer protection over workers' data.

The working conditions in digital spaces frequently breach safety and health standards we would expect in even the most basic employment situation. Women gig workers who provide services in someone's home are arguably exposed to a greater risk of the threat of sexual harassment or violence, and other than stating such conditions are unacceptable, the platforms offer little in safety standards. Delivery workers and riders will be out for a service regardless of very bad weather, with or without hazard pay, safety equipment, or anything else the platform might provide, so long as services are being continued even if it endangers the

¹⁴PWOnlyIAS, "The Harsh Reality of Gig Worker in India"*PWOnlyIAS* (May 5, 2025) <https://pwnonlyias.com/editorial-analysis/harsh-reality-of-gig-work-in-india/> (last visited on 13 October 2025)

¹⁵Rachana Ramesh, "How Bleak Is a Gig Worker's Life"*Bangalore Mirror* (March 15, 2024) <https://bangaloremirror.indiatimes.com/bangalore/others/how-bleak-is-a-gig-workers-life/articleshow/108503021.cms> (last visited on 13 October 2025)

worker. One recent digital strike organized by female gig workers on Diwali highlighted the conditions of working without safety measures, grievance protocols¹⁶.

Digital platforms consistently infringe working time regulations. Workers feel pressure to accept freelance work assignments at all times, thus maintaining their ratings on platforms, and work opportunities. For workers that lack any clear working time boundaries, many, for all intents and purposes, are “on call” at all times, thus blurring the boundaries between work and off work. Furthermore, the platform algorithm incentivizes work through surge pricing and bonuses, giving an incentive to work beyond safe working hours.

The union-busting efforts within the digital workplace are also becoming more sophisticated. Using algorithmic management, platforms can discourage workers from coordinating their organizing efforts. Platforms can algorithmically assign less work to an activist employee, and it becomes very difficult to prove this, allowing it to be used as an excuse to assign less work (to ultimately deter organizing efforts). Additionally, platform workers are spread out geographically, which makes it difficult to organize in usual ways, and many independent contractor classifications prevent workers from organizing and bargaining collectively. Case studies represent systematic patterns of systematically violating rights across major platforms. An example of a case study is the true story of workers at an Amazon warehouse in which the workers said, we pledged to “not take a toilet break” until our work was completed. the case represents how humans will always put their dignity at risk in the name of productivity. In that same investigation, the independent investigation reported documented safety violations, hours improperly documented, and required protective equipment for female workers working next to machines. In many cases, while workers have legal rights under a strong legislative framework for labour protections in India, there are typically poor enforcement policies¹⁷.

V. Sexual Harassment of Female Workers in Digital Spaces

The transition to digital workplaces has opened up new risk factors for sexual harassment and exposed the inadequacies of current laws for physical workplaces. While the

¹⁶Penny Williams, Paula McDonald and Robyn Mayes, “The Growing ‘Gig Economy,’” *Handbook series in occupational health sciences* (2022) https://doi.org/10.1007/978-3-030-29010-8_32 (last visited on 13 October 2025)

¹⁷Antonio Aloisi and Valerio De Stefano, *Your Boss Is an Algorithm* (2022) <https://doi.org/10.5040/9781509953219> (last visited on 13 October 2025)

legal intent of the Prevention of Sexual Harassment (POSH) Act 2013¹⁸ is positive, and future focused, the legislation needs to be extensively reviewed and amended to ensure it can truly address harassment in any virtual setting.

Harassment in the virtual workplace can take on many new forms that were previously not recognized as harassment by legislators. A recent SafeNet survey of 315 individuals found that 86 of respondents reported experiencing sexual harassment while doing remote work¹⁹. This suggests that while remote workplaces may have technical and legal safeguards against harassment, harassment does not disappear from the workplace, but rather transforms and appears in new venues. New appearances can include harassment through inappropriate video calls, sexually explicit messages to an employee, through work communications and harassment through conversation forums on digital platforms—the very harassment which current legal schemes and laws visibly are having difficulty identifying.

The dimensions of harassment that can manifest in the digital workplace may be characterized under the current POSH legal structure when speaking about the definition of "workplace" as being, "any place the employee would visit arising out of or during the course of employment." However, the application of the POSH Act, and corresponding processes related to Internal Complaint Committees, the process that relates to investigation and process that relates to gathering evidence assumes and takes into account the typical physical structure of "workplaces." All of these factors become increasingly layered and complex in the realm of digital workplace harassment that occurs across platforms and jurisdictions and/or the use of personal mobile devices to conduct work tasks.

Women workers in platform-based work are particularly at risk of being exploited when they provide services in clients' homes. A survey of workers provides evidence that a common experience for workers, providing beauty services, personal care and domestic work, is that the client often demands more work beyond the original ask through the platform with little to no protection from the platform against exploitative practices. The workers also referenced an understanding of the power dynamics associated with the reporting/rating processes where the client is able to provide a rating after the worker completed the task and that rating being

¹⁸Prevention of Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013.

¹⁹Ivany Atina Arbi, "Virtual Harassment Rampant during Work-from-Home, Survey Finds" *The Jakarta Post* (June 13, 2020) <https://www.thejakartapost.com/news/2020/06/13/virtual-harassment-rampant-during-work-from-home-survey-finds.html> (last visited on 13 October 2025)

potentially a variable in economic dependence for the worker, and this becomes an exploitative situation where the client has coercive options for the worker to comply and/or to address requests made by the client, regardless of their ability to refuse based on fear of economic impact.²⁰

Algorithmic discrimination based on gender is a new and emerging form of harassment which should be recognized and regulated to prevent future harm. There are potential harms to women workers who are evaluated based on performance metrics used at a scale by AI systems, or through methods of assignment of workers to employment, or through hiring platforms. While these risks of harm do not constitute a form of harassment, they do create systemic barriers to women achieving economic participation that can affect the outcomes of existing forms of harassment.

Enforcement of harassment occurring on a platform is incredibly difficult. New rules or new legal frameworks may be needed, for example, to safeguard electronic evidence, conduct cross jurisdictional investigations or if the platform fails to cooperate with requests in relation to an investigation. The Delhi High Court recently decided that in relation to virtual workplaces, a more expansive interpretation of the POSH and procedure related to electronic evidence is necessary to address harassment, but there are still needs for a broader reform agenda.

All over the world, there are various approaches to digital workplace harassment. The European Union's Digital Services Act (DSA) establishes obligations on platforms to regulate content, while elsewhere in the world, some laws impose laws of workplace harassment laws to the digital context. India will have to strike a balance in regulating platforms while ensuring protection of workers, to create quick and reasonable remedy for workers who experience harassment.

VI. Whistleblower Protection in Labour Contexts

Ensuring the protection of whistleblowers is difficult enough for workers operating in the digital or gig economy, and the existing statutes do not cover the full range of issues raised by workers in these contexts. For example, the Whistleblower Protection Act 2014 only covers

²⁰Uma Rani and others, "Women, Work, and the Digital Economy" (2022) 30 Gender & Development 421 <https://doi.org/10.1080/13552074.2022.2151729> (last visited on 13 October 2025)

public sector corruption cases and does not extend to employees in the private sector, who make up the majority of workers in the digital economy.

Furthermore, there are structural elements of gig work that heighten the risk of retaliation. As platform workers receive their work assignments from algorithms, retaliation becomes difficult to see and track. If a worker reports unsafe working conditions or wage theft, the worker may not receive as many work assignments, see their worker rating drop, or have their account deactivated altogether, all without any clear causal link between their reporting and subsequent retaliation. Additionally, the worker's lack of employment or grievance processes limits their protection from retaliation.

According to the Companies Act 2013²¹, corporations must establish a whistleblower policy which offers some protection for whistleblowers, yet the majority of digital workers, who are working for unlisted platforms or independent contractors do not have these protections. The "vigil" mechanisms, which are required under securities regulations, do not address issues of worker safety, wage theft or discrimination incidents that significantly impact gig workers.

In general, complain processes on platforms are not independent or transparent, and offer little protection against reprisal as workers report that the grievance system often appears to be designed to chiefly complement the platform and/or client as opposed to protecting the worker's interest, and complaints are often dismissed without investigation. Whistleblower mechanisms do not offer reasonable external avenues to appeal internal procedures, leaving workers with little protection when internal avenues do not resolve external disputes.

The Whistleblower Protection Directive in the EU places requirements upon employers to make available protected channels for disclosures, obligates employers to prohibit retaliation against whistleblowers, and importantly, independent oversight of the whistleblower protections. The UK's Employment Rights Act provides extensive and broad ranging whistleblower protections, which could also serve as an effective model for worker protections in India's emerging digital economy.²²

²¹Companies Act 2013

²²"Protection for Whistleblowers" (*European Commission*) https://commission.europa.eu/aid-development-cooperation-fundamental-rights/your-fundamental-rights-eu/protection-whistleblowers_en (last visited on 13 October 2025)

Policy based in constituency, is a one possibility to address the specific whistleblower issues unique to platform work. Policy based on constituency could create specific disclosures for workers to have algorithmic transparency to workers, verification that workers will not be retaliated against for coded concerns when raising concerns about biases, including safety, or other policy. Other possible policy areas could be supporting independent alternative dispute resolution processes on any concerns workers have raised about workplace policies. The enormous barrier is to create substantial and effective whistleblower protections for workers in which workers will raise concerns about their workplace or platform work which does not create burdensome compliance issues, specifically valid platform workers.

VII. Disability Rights in Digital Labour

Digital technologies present both unparalleled possibilities and considerable obstacles for those who have disabilities. The Rights of Persons with Disabilities Act 2016 sets overarching standards for accessibility, yet those standards are not well-integrated in digital workspaces.

Digital economic potential for inclusive employment is considerable. Remote work can take away transportation issues, flexibility in work schedules can address a variety of issues, and assistive technologies may allow for engagement that is not otherwise possible in traditional workplaces. However, realizing that potential requires intentional attention to accessibility in design and regulatory enforcement of accessibility standards.

In particular, AI systems used to make hiring and performance evaluations have risk for individuals with disabilities as well. AI algorithmic bias against disability can occur from discriminatory training datasets, from flawed or inappropriate measures of performance, or from a lack of recognition of different behaviour, expressions or styles of workplace communication and behaviour. The risk increases when the AI system makes employment decisions without any meaningful human review or consideration of reasonable accommodation.

Digital accessibility requirements will need new frameworks that are not necessarily limited to changes to current workplace notions. The RPwD Act opens access to justice for persons with disabilities where public and private digital platforms comply with the WCAG requirements for digital access. However, enforcement is weak, with the vast majority of digital

platforms setting only minimal standards for accessibility. In its 2024 judgements of *RajiveRaturi v Union of India*²³, the Supreme Court stated that access to the digital economy is an enforceable right. However, this is a tall order to accomplish accessibility across the digital economy, and will require sustained implementation efforts.

Digital accessibility holds accountable digital copying systems who develop software that is accessible to persons with disabilities who employ assistive technologies, and communication and performance management systems which provide access to access alternatives to address expected methods of communication and flexible processes to accommodate stress (e.g., unintentional stress) not to the disadvantage of the worker with a disability.

The intersection of algorithmic management and disability accommodation presents a challenging problem. Algorithms, and artificial intelligence must accommodate differences of ability rather than simply measure what ability employees can achieve against their defined productivity or performance standard that primarily fails to include employees that have disabilities. This requires disciplinary standards pertaining to technical design and preproduction training programs, along with compliance to oversight to ‘unpack’ the design process from compiled, categorized items that are marketed as having a new design to one that prioritizes disability inclusive design principles.

VIII. The Gig Economy and Labour Protection Gaps

The gig model in India will employ an estimated 23.5 million individuals around 2029-30, and much of this employment is outside the scope of any regular labour protection, which raises important questions regarding worker protections and rights. Observers of protection gaps have identified concern regarding the differences between employee and independent contractor and its relevance to the life trajectories of many millions of workers. Because a person's legal status has direct implications for their entitlements in relation to minimum wage, social security, and collective bargaining, the lack of certainty is concerning. While the Code on Social Security 2020 presents the first recognition of gig workers as "a person who undertakes paid work for remuneration outside the purview of traditional employer-employee relationship", this

²³*Rajive Raturi v Union of India & Ors*, **2024 INSC 858**

definition does not imply protection based on employee status; there is also the broader reiteration of no other option providing protections without an employee definition²⁴.

Difficulties pertaining to social security and benefits gaps are tremendous issues for gig worker protections. Gone are the benefits traditionally linked with workers employment: provident fund; employee insurance; gratuity. Gig workers do not have access to economy security if they are sick or injured, or facing a period of employment. While the Code does provide some obligation from aggregators (here it is 1-2% of annual turnover), that acknowledgment is progress but does not supply social protections possible to plug those gaps.

Wage determination through algorithms creates new forms of wage exploitation that cannot exist in tradition employment. Platform companies can quickly change worker wages through dynamic pricing, surge multipliers, or commission structures where workers find out their earnings have substantially changed without notice and the ability to negotiate. Given the practices of opaque process proven to determine wages, workers find it impossible to even know how to challenge, or when to challenge the decision, factors in (a)symmetrical principles of wages based on equitable pay for hours worked.

Independent contractor classification does not take into account occupational health and safety concerns for gig work. Delivery workers must operate without protection in diverse circumstances and environments with possible hazards related to traffic, extreme exposure to weather, and equipment. Even a recent heat wave resulted in delivery workers working under even more unsafe possible conditions with platforms providing nothing related to hazard pay or safety protections.

Collective organization and unionization are also limited by structural challenges found in the gig economy. Labor relations structures that promote worker collective organization and unionization have historically grown from professionals working on job sites. Heavily algorithmically managed workers develop initiatives (e.g., Gig and Platform Workers Union) that reflect unique organizing approaches for alternative organizing such as platform strikes

²⁴NITI Aayog and others, "India's Booming Gig and Platform Economy: Perspectives and Recommendations on the Future of Work" (2022) https://www.niti.gov.in/sites/default/files/2022-06/Policy_Brief_India%27s_Booming_Gig_and_Platform_Economy_27062022.pdf (last visited on 13 October 2025)

and social media campaigns, but worker acknowledgement in labour relations and bargaining still needs addressing.

IX. Emerging Issues and Intersectional Challenges

The transformation of work to digital has introduced interrelated challenges that demand comprehensive policy responses to several vulnerabilities at once. The new challenges highlight the inadequacies of siloed responses to labour protections in a collectivizing digital economy.

The shocks from displacement from jobs due to automation are unevenly distributed across categories of workers, with moderate-level jobs, or what is called routine jobs, facing the greatest exposure to job displacement. In addition, concentrated job losses in certain sectors and localities exacerbate inequity and impose new forms of economic exclusion. Retraining rights and social protection during this transitional period are vital components of just automation policies.

Cross-border digital labour introduces complications in enforcing domestic worker protections, especially when Indian workers do work for clients based in an international context via global platforms. In the context of jurisdictional disputes, different labour standards, and extraterritorial applicability issues, protections aren't established, and sophisticated platforms are eager to take advantage of gaps in protection. The demand for international orders on labour rights to address the rise of digital work that is crossing borders is imminent.

Scholarly research has not yet focused on mental health and wellbeing in digital workplaces, though it is a critical area of work. Remote worker leads to isolation, algorithmic management case constant management to always be on, causing go to stress while working in gig conditions that don't consider those stressors and mental wellbeing because of the nature of gig work. Workers on platforms acknowledged their anxiety about income unpredictability, rating systems on the platforms, and pressure from the platforms to always be available.²⁵

²⁵“UNDERSTANDING SOCIAL SECURITY FOR GIG WORKERS: ANALYZING RECENT DEVELOPMENTS”<https://nliulawreview.nliu.ac.in/wp-content/uploads/2022/02/3.-Understanding-Social-Security-for-Gig-Workers.pdf> (last visited on 13 october 2025)

Informal digital workers are those who work outside the platforms - they are working on social media or video messaging apps or directly to clients. These workers are even more vulnerable than those on platforms because they do not have access to grievance procedures, and payment protections, or even basic legal status because they are working in a largely unregulated environment and limits the workers' recourse for any form of abuse or exploitation. However, it is notable that both types of workers in either space are often exploited and abused, though the informal workers have few if any methods for complaint if they are exploited or abused.

Additionally, child labour concerns in digital supply chains must also be considered, especially for platforms entering the unregulated workforce. Not only do platform workers usually exhibit high dependency on family labour, but the flexibility with regards to age verification, combined with the continued economic precarity of family income, create unique contextual conditions for child workers that are not accounted for in any existing labour law.

Environmental justice problems are magnified when the business of digital work increases the amount of car traffic, waste associated with delivery packages, and energy use connected with the digital work infrastructure. While the environmental costs of Digital Work tend to be birthed by under-resourced communities, the benefits flow to platform owners and to wealthy consumers.

X. Regulatory Responses and Legal Reforms

India's regulatory equation to address the challenges created by digital labour emphasizes four Uniform Labour Codes that were designed to consolidate 29 existing laws, the most progressive reshaping of labour laws in India since independence. Implementation delays and contexts excluded from specific digital provisions limit further ground-level impacts of these codes on platform workers in India²⁶.

The Code on Social Security 2020 is the most direct response to the needs of gig worker employment and is the only code to require aggregator contributions to social security fund provisions and create a registration system for all platform workers. Although the provisions for activating National Social Security Boards and the registration process through the e-Shram

²⁶Prime Minister Narendra Modi, "New Labour Code for New India" (2020) book https://labour.gov.in/sites/default/files/labour_code_eng.pdf (last visited on 13 October 2025)

portal represent an infrastructure for ongoing protection for workers, all aspects of their success will depend on efficient implementation and the state's capacity and quality of enforcement²⁷.

Internationally, some regulations in the platform economy offer some models for developing ideas in an Indian policy context. The European Union's proposed platform work directive attempts to define and clarify employment status designations and algorithmic decision-making and reporting, whilst California's AB5 law attempts a wholesale reframing of gig working to pull gig workers into the employee category directly. In the UK, a model response to labour laws uses the mechanism of employment tribunals where employment status is legally designated on a case decision basis allowing for more flexibility in adjudicating employment status compared to codified statutes.

Court decisions are vitally important precedential cases for establishing rights for digital workers. The UK Supreme Court Uber decision establishes core principles of how workers must be classified on the basis of actual control, rather than contract documentation. Indian courts have not yet ruled in a holistic manner regarding whether platform workers are workers or not, however emerging cases could provide precedent that would operate in the Indian context in similar manner to the UK precedent.²⁸

The Government of Karnataka institutionalized the Platform-based Gig Workers (Social Security & Welfare) Ordinance 2024 provides the first state-level framework that creates welfare boards, grievance mechanisms, and visible public transparency requirements by which algorithms and their implementations must be accessible to the public. This is a subnational innovation and could serve as a basis for developing policy nationally or coordinating across states²⁹.

The self-regulation versus governmental regulation debate reflects the overall tensions between the possibility of innovation and technology and the protection of workers. The arguments from the platform company's side of the status-quo and position, tend to emphasize voluntary standards for the platform industries, and market-based solutions; whereas advocacy

²⁷THE CODE ON SOCIAL SECURITY, 2020

²⁸Jason Moyer-Lee, *UK Supreme Court's Uber Decision Is a Victory for All Gig Workers*<https://www.aljazeera.com/opinions/2021/2/25/the-uk-supreme-courts-uber-decision-is-a-victory-for-all-workers> (last visited on 13 October 2025)

²⁹"Bills States" (*PRS Legislative Research*) <https://prsindia.org/bills/states/the-karnataka-platform-based-gig-workers-social-security-and-welfare-bill-2025> (last visited on 13 October 2025)

groups for worker's organization and the platform worker may emphasize comprehensive and uniform laws and enforcement mechanisms -- laws enacted to comply at the federal and/or the state level. Reasonable consideration will likely lead to hybridizing regulatory minimums and best standards by the industries themselves.

Governance models that include a mixed coalition of workers, platforms, government, and civil society, may provide a more adaptive regulatory structure than the standard Command-and-Control structure that does not include the actual workers. The substantive challenge becomes building real representation for workers in those regimes and mitigating from the potential of regulatory capture.

XI. Recommendations and Future Directions

Taking into account the range of issues and obstacles facing digital labour in India, we offer a multi-pronged reform agenda that addresses the immediate protections that are required and will also underpin future governance of the digital economy.

1. An Inclusive Digital Labour Rights Framework

India needs a Digital Labour Rights Act that covers platform work, AI governance, and protections for workers engaged in digital work. The framework should provide indicators of employment classification based upon the economic reality instead of contract practices; extend foundational labour rights to all digital workers regardless of classification; and include standards to promote enforcement of digital workplace violations.

The framework requires algorithmic transparency indicators that compel platforms to disclose criteria for AI decision-making; and should offer processes for Article 25 to appeal algorithmic decision-making. The framework also demands that labour market governance regulation in the nation must also be regularly audited for biases and discrimination. Workers should be able to understand, question and seek recourse for AI mediated employment decisions that directly impact their earning or ability to earn a living.

2. Enforcement Mechanisms and Capacities Related to Technology

Digital labour violations will require the establishment of specific enforcement mechanisms and capacities. Regulatory agencies will require capacity for technical expertise to help analyse

algorithmic bias in a decision; assess the algorithms leading to that decision over time; evaluate platform data; and understand multi-dimensional interactions occurring in the digital workplace. This capacity could include training programs for inspectors, partnerships with technical institutions, and new protocols or procedures for investigations incorporating digital evidence collection.

Finally, cross-border enforcement capacities will have to involve the understanding of cross-border implications of platform work and how international cooperation agreements can better address the global nature of platforms (i.e., service providers). This involves two steps: 1) applying Indian labour laws extraterritorially as applying to Indian workers, and 2) making jurisdictional cooperation actionable to work with foreign regulators to include investigations.

3. Strengthening Union Organizing in the Digital Economy

Unions will have to adapt their standard forms of organizing to address the realities of the digital economy. Legal frameworks must accept a new organizing model that encompasses: 1) using digital platforms for communications among fellow workers, 2) sectoral bargaining applicable to multiple digital platforms, and, finally, 3) a unique form of union membership that is portable and can follow workers across platforms and employment status.

The rights of workers with regard to data concerning them, must include: 1) the right to organize as a collective, 2) access to personal contact information of workers for legitimate organizing endeavours, and, finally, 3) protection from algorithmic retaliation or other technological penalties against union activity.

4. International Coordination and Cross-Border Protection

Digital labour is a global phenomenon, requiring global coordination. This coordination should be multilevel, occurring across bilateral labour agreements with major countries hosting platforms, active engagement in ongoing international standard-setting practices (primarily with ILO negotiations on the platform economy), and the potential for a mutual recognition agreement process for digital worker protection and certification.

5. Data collection and research priorities

Evidence-based policy development is dependent upon systematic data collection on the

conditions of digital workers, the behaviour of platforms, and the impact of the policy. To evidence based policies, data collection methods are critical, it might include mandatory requirements for platforms to report on demographics of workers, wages, and working conditions; longitudinal studies of digital workers outcomes; and ongoing assessments of the effectiveness of regulations. Research priorities where appropriate should focus on the intersectionality of AI and worker rights, the effectiveness of various approaches of regulation, and developing appropriate measures of decent work in digital context.

6. Policy Road Map for India

Implementation should take place in phased approaches, starting with immediate protections for the most vulnerable workers and then expanding existing social security schemes that address platform worker rights; including using them to develop the regulatory capacity to oversee digital work. Mid-term priorities would be a comprehensive legislative reform, such as the proposed Digital Labour Rights Act extending into digital labour courts, and cooperation agreements. Long-term priorities may include expanding policies that protect digital workers, into India's social protection system, while also taking a global lead in developing digital labour standards.

XII. Conclusion

This in-depth study shows that the transition to a digital economy in India has generated a new scope for economic development and employment, but in doing so has also laid bare significant gaps in worker protection that require immediate policy attention. The evidence shows that the employment law framework is inadequate for addressing the complexities of platform work, algorithmic management of workers, and harassment in digital workplaces—all concepts that are increasingly problematic in contemporary employment relations.