

Artificial Intelligence and the Future of Labour Regulation: Challenges for Indian Labour Jurisprudence



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Abstract

Artificial Intelligence (AI) is transforming the global labour market by automating traditional tasks, redefining work relations, and challenging existing legal frameworks. In India, this shift coincides with the implementation of new labour codes that aim to consolidate and modernize the country's employment laws. However, the advent of AI raises new regulatory questions concerning algorithmic management, worker classification, data privacy, and social security in a digitized economy. This research critically analyses the implications of AI for Indian labour jurisprudence, focusing on how emerging technologies affect the traditional employer–employee relationship, labour rights, and the efficacy of statutory protections. Drawing upon the *Code on Social Security (2020)*, the *Industrial Relations Code (2020)*, and relevant judicial precedents, the paper explores the conceptual tension between technological efficiency and human-centric labour justice. It also engages with global developments such as the European Union's *AI Act*, International Labour Organization (ILO) guidelines, and the OECD principles on AI governance to frame India's regulatory position within a comparative perspective.

The study adopts a doctrinal and analytical methodology, integrating statutory interpretation with policy review and academic commentary. Findings suggest that while Indian labour law acknowledges digital workforces in a limited sense—particularly through provisions for gig and platform workers—there remains an absence of a coherent legal framework to address algorithmic accountability, bias, and the erosion of job security. The paper concludes that the future of Indian labour jurisprudence must hinge on adaptive regulation that balances innovation with equity, advocating for a hybrid model that incorporates ethical AI principles into labour law reform.

Keywords: Artificial Intelligence, Labour Regulation, Indian Labour Codes, Algorithmic Management, Gig Economy, Employment Law Reform

1. Introduction

1. Background and Context

The twenty-first century marks an unprecedented technological revolution in the world of work. Artificial Intelligence (AI), encompassing machine learning, predictive analytics, and automation, has transcended from a computational concept to a structural force that reshapes industries, employment relations, and the global economy. The International Labour Organization (ILO, 2021) observes that technological disruption has become one of the defining labour challenges of the modern era, influencing both the quantity and quality of employment.

In India, where the labour market is already characterized by informality, contractualisation, and socio-economic disparity, the integration of AI systems introduces both opportunities and vulnerabilities. From recruitment algorithms to performance analytics, AI-driven processes are increasingly mediating decisions that were once the exclusive domain of human managers. The traditional binary of “employer” and “employee” is being blurred by algorithmic governance, wherein digital platforms and data-driven systems assume quasi-managerial roles without corresponding accountability.

2. Rationale of the Study

The primary motivation of this research is to interrogate whether existing Indian labour laws—particularly under the consolidated *Labour Codes of 2020*—are equipped to regulate AI-mediated work environments. The *Code on Social Security, 2020* introduced the categories of “gig workers” and “platform workers,” a legislative acknowledgment of the digital economy. However, it remains silent on the governance of algorithmic labour control, AI surveillance, and data-driven discrimination.

Globally, jurisdictions such as the European Union have begun to legislate the ethical deployment of AI through instruments like the *EU Artificial Intelligence Act (2021)*, focusing on human oversight, risk classification, and algorithmic transparency. India, by contrast, lacks a direct regulatory instrument linking AI ethics with labour protection. The *National Strategy for Artificial Intelligence (NITI Aayog, 2018)* primarily addresses innovation and economic competitiveness, not labour rights.

3. Research Problem

The integration of AI into the workplace fundamentally redefines the notion of employment itself. Questions arise regarding accountability in algorithmic management, collective bargaining in digital workplaces, and the future of job security in automated industries. Thus, the core research problem can be stated as:

{How does the growing use of Artificial Intelligence challenge the current structure of labour regulation in India, and what reforms are necessary to align labour jurisprudence with the evolving realities of work?}

4. Objectives of the Study

1. To examine the implications of Artificial Intelligence for employment relations and labour rights in India.
2. To evaluate the adequacy of Indian labour laws—especially post-2020 Labour Codes—in addressing AI-driven work environments.
3. To analyse comparative international frameworks on AI and labour regulation to derive lessons for Indian policy.
4. To propose regulatory recommendations for integrating ethical AI principles within labour jurisprudence.

5. Scope and Significance

This research adopts an analytical legal approach to evaluate how the fusion of technology and labour law demands doctrinal evolution. Its scope extends to both traditional employment sectors being automated and emerging gig/platform-based economies where AI defines the employment experience. The study's significance lies in bridging the gap between technological policy and social justice by situating AI governance within the normative goals of Indian labour law—equity, security, and dignity of work.

6. Structure of the Paper

The paper is organized into six key sections: the abstract, introduction, literature review, methodology, legal analysis, findings and discussion, and conclusion with policy recommendations. Each section progressively builds upon the central argument that Indian labour jurisprudence must evolve from an industrial-era framework to a digital-era paradigm capable of confronting the socio-legal implications of Artificial Intelligence.

2. Literature review

The intersection of **Artificial Intelligence (AI)** and **labour regulation** has become an area of growing academic and policy concern worldwide. The literature reflects two broad schools of thought: the *techno-optimistic* perspective, which views AI as a driver of productivity and job evolution, and the *techno-critical* perspective, which warns of labour precarity, ethical challenges, and legal inadequacies.

1. Theoretical Foundations: Technology and Labour Law

Karl Marx's theory of labour alienation, revisited in contemporary scholarship (De Stefano, 2020), provides a foundational lens through which AI's impact on workers can be understood. Automation, according to Marxian thought, tends to alienate the worker from the production process — a phenomenon intensified in algorithmic workplaces where data replaces dialogue.

Freeman (2018) argues that digital capitalism reconfigures labour relations by embedding surveillance and predictive management into the employment process. AI systems, instead of liberating labour, often reproduce existing hierarchies through data-driven control mechanisms.

In the Indian context, **Babu (2021)** notes that technological governance within the workplace lacks a normative legal structure. Indian labour law has historically evolved around the factory system and collective bargaining, but AI introduces a dispersed, individualized form of work mediated by platforms like Swiggy, Ola, and Urban Company.

2. The Gig Economy and Platform Labour

The rise of AI-powered gig platforms has prompted intense debate about the status of workers and their access to labour rights. **De Stefano (2016)** and **Aloisi (2022)** describe this phenomenon as “algorithmic management,” where software replaces traditional supervision. Workers are rated, allocated tasks, and even dismissed through automated systems.

In India, **Rani and Furrer (2021)** argue that gig workers face a double vulnerability: economic insecurity due to task-based remuneration and regulatory invisibility due to outdated labour definitions. The **Code on Social Security, 2020**, for the first time, acknowledges “gig” and “platform” workers, yet the protection remains declaratory, not enforceable.

ILO Reports (2021, 2023) underscore the global challenge of algorithmic accountability, noting that over 40% of surveyed workers experience opaque decision-making by AI systems in gig platforms. However, few jurisdictions have developed robust governance frameworks to ensure algorithmic fairness.

3. Comparative Legal Developments

In the **European Union**, the proposed **AI Act (2021)** establishes a risk-based classification of AI systems, mandating transparency and human oversight in high-risk sectors, including employment. Scholars such as **Veale and Zuiderveen Borgesius (2021)** argue that the Act represents a paradigm shift in embedding ethical AI principles into regulatory structures.

The **United States**, by contrast, has adopted a decentralized approach through sectoral guidelines such as the **Algorithmic Accountability Act (2022)**, emphasizing self-audit and corporate compliance.

OECD (2021) principles on AI call for inclusive growth, human-centered values, and accountability — offering a normative framework for developing economies like India to emulate.

In Asia, **Japan** and **South Korea** have initiated “Human-in-the-Loop” governance mechanisms, ensuring that automated systems never operate without human intervention in employment contexts.

India’s approach remains embryonic. The **NITI Aayog (2018)** report titled *National Strategy for Artificial Intelligence: #AIForAll* focuses on innovation and economic potential, but omits direct references to employment regulation or workers’ digital rights.

4. Indian Labour Jurisprudence and AI

Judicial recognition of AI-related labour issues in India is still nascent. Courts have primarily dealt with technological disputes in terms of privacy or data protection, rather than labour-specific accountability.

However, the **Supreme Court’s observations in Puttaswamy v. Union of India (2017)** laid the groundwork for “informational privacy,” which may extend to the labour domain as AI collects massive amounts of employee data.

Choudhury (2022) highlights that India’s current labour law structure, even after codification in 2020, is ill-equipped to address non-standard forms of work. The definitions of “employer” and “employee” remain tied to traditional industrial relationships, leaving gig and AI-mediated workers in a legal grey zone.

5. Ethical and Human Rights Dimensions

AI-driven work processes raise questions about dignity, autonomy, and discrimination. **Eubanks (2018)** demonstrates how algorithmic systems can perpetuate bias and social exclusion if trained on historically unequal datasets.

From a human rights perspective, **Mantouvalou (2020)** emphasizes that the right to fair conditions of work under international law must extend to digital and algorithmic contexts. The **ILO Declaration on Fundamental Principles and Rights at Work (1998)** supports this view, underscoring non-discrimination, collective representation, and just remuneration — all of which are at risk in AI-managed workplaces.

In India, the **Supreme Court’s interpretation of Article 21** (Right to Life and Dignity) in cases like *Olga Tellis v. Bombay Municipal Corporation (1985)* and *Bandhua Mukti Morcha v. Union of India (1984)* anchors labour rights within constitutional human dignity. Extending this constitutional morality to AI-mediated work is a pressing legal imperative.

6. Research Gap Identified

The reviewed literature highlights a crucial gap: while there is substantial discourse on technology and the future of work, there is **insufficient engagement with how Indian labour law can doctrinally evolve to govern AI**. Existing analyses either focus on economic impact or data protection, without integrating legal accountability and jurisprudential reform.

This study, therefore, situates itself in this gap, offering a **critical legal-analytical perspective** that bridges AI governance and Indian labour law reform.

3. Research methodology

1. Research Design

The study adopts a **doctrinal and analytical legal research design**, combining qualitative interpretation of legal texts with theoretical and policy analysis. It examines primary legal sources such as statutes, judicial decisions, and international instruments, supplemented by secondary literature including academic commentary, ILO reports, and government policy papers.

2. Sources of Data

- **Primary Sources:**
The *Code on Wages, 2019*; *Industrial Relations Code, 2020*; *Code on Social Security, 2020*; *Occupational Safety, Health and Working Conditions Code, 2020*; relevant Supreme Court judgments; and international conventions.
- **Secondary Sources:**
Scholarly articles, books, think-tank reports (e.g., NITI Aayog), and global regulatory documents such as the *EU AI Act (2021)* and *OECD Principles on Artificial Intelligence (2021)*.

3. Method of Analysis

The research employs **critical doctrinal analysis**, which involves interpreting statutes and judicial decisions in light of evolving socio-technological realities. It uses **comparative methodology** to juxtapose Indian frameworks with international regulatory models to identify gaps and opportunities.

Additionally, a **normative evaluative approach** is applied — assessing whether India's current labour laws align with the constitutional principles of equality, dignity, and justice under Articles 14, 19, and 21.

4. Limitations

The research is limited to secondary data and theoretical analysis, given the absence of judicial precedents directly addressing AI in employment. However, this limitation is mitigated by extensive reliance on comparative and policy-based frameworks.

4. Legal Theoretical Analysis

1. Reconfiguring the Employer–Employee Relationship

One of the most profound challenges AI presents to labour jurisprudence lies in its disruption of the traditional employer–employee binary. Historically, Indian labour law evolved from an **industrial paradigm** rooted in the *master–servant* model, emphasizing control, supervision, and dependency as

criteria for employment. Under the **Industrial Disputes Act, 1947**, the “contract of service” was the core determinant of who qualifies as a “workman.”

However, AI blurs these distinctions. Platforms like **Ola**, **Swiggy**, and **Urban Company** rely on algorithmic systems to allocate work, evaluate performance, and even terminate service — all without direct human supervision. The “employer” becomes a technological entity, and the worker’s autonomy is mediated through an opaque algorithm.

In **Uber BV v. Aslam (2021)**, the UK Supreme Court held that drivers were “workers” despite contractual terms labeling them independent contractors, primarily because the platform exercised significant algorithmic control. Indian courts, however, have not yet confronted a similar challenge.

The **Code on Social Security, 2020**, while progressive in introducing definitions of “gig” and “platform” workers, fails to confer full employment benefits such as gratuity, provident fund, or collective bargaining rights. This partial recognition risks institutionalizing a “**second-tier**” workforce, contrary to the constitutional commitment to equality under **Article 14**.

2. Algorithmic Management and the Doctrine of Control

The “control test” — a long-standing doctrine in Indian labour jurisprudence — determines whether a relationship of employment exists. In *Dharangadhra Chemical Works Ltd. v. State of Saurashtra* (1957), the Supreme Court emphasized the employer’s power to control work performance as decisive.

Under AI-mediated work, however, control is exercised **digitally and invisibly**. Algorithms track workers’ productivity, monitor customer ratings, and enforce behavioural norms through real-time feedback. This **algorithmic control** satisfies the doctrinal test of supervision, but its invisibility creates a legal vacuum.

Scholars like **De Stefano (2020)** and **Aloisi (2022)** argue that algorithmic management is “control by code,” necessitating a reinterpretation of the control test. For Indian jurisprudence, this requires extending traditional employment doctrines to **recognize algorithmic decision-making as a form of managerial authority**.

The absence of statutory acknowledgment of algorithmic supervision results in the erosion of accountability. Workers dismissed or penalized by algorithms have little recourse, as **no identifiable “employer”** exists in legal terms. Judicial innovation will therefore be required to adapt doctrines of vicarious liability and due process to AI contexts.

3. Constitutional Dimensions: Dignity, Equality, and Livelihood

The Indian Constitution enshrines a **human-centric vision of labour rights**. Articles **14**, **19(1)(g)**, and **21**, read together, establish the right to equality, freedom of occupation, and the right to livelihood. In *Olga Tellis v. Bombay Municipal Corporation* (1985), the Supreme Court held that the “right to livelihood” forms part of the right to life.

The entry of AI into the workplace raises constitutional concerns on multiple fronts:

- **Equality (Article 14):** Algorithmic decision-making may lead to discriminatory outcomes due to biased data or flawed predictive models.
- **Freedom (Article 19(1)(g)):** Automation threatens occupational security, potentially restricting one's freedom to pursue a trade or profession.
- **Life and Dignity (Article 21):** Constant AI surveillance and data profiling may undermine human dignity at work.

The **Puttaswamy (2017)** judgment^{**,**} which recognized informational privacy as a fundamental right, provides a constitutional basis to challenge AI-induced privacy intrusions in workplaces. Yet, the absence of a **comprehensive data protection law** exacerbates worker vulnerability. The *Digital Personal Data Protection Act, 2023*, while addressing consent and data security, does not directly regulate workplace surveillance or algorithmic profiling.

4. The Labour Codes, 2020: Promise and Limitations

India's consolidation of 29 central labour laws into four major codes —

1. *Code on Wages, 2019*
2. *Industrial Relations Code, 2020*
3. *Code on Social Security, 2020*
4. *Occupational Safety, Health and Working Conditions Code, 2020* —
was intended to simplify and modernize labour governance.

However, these codes largely **ignore AI and digital employment models**.

(a) Code on Social Security, 2020

This code is the only one acknowledging “gig” and “platform” workers (Sections 2(35)–(37)). Yet, it confines their rights to discretionary welfare schemes. No binding duty exists on aggregators to ensure fair pay, insurance, or occupational safety.

(b) Industrial Relations Code, 2020

This code's emphasis on “employer–employee” negotiation presumes a physical workplace and human management. In algorithmic labour, collective bargaining becomes nearly impossible as workers rarely interact or identify their digital “employer.”

(c) Occupational Safety, Health and Working Conditions Code, 2020

AI systems can both enhance and endanger worker safety. For instance, predictive algorithms in manufacturing reduce accidents, but digital fatigue and cognitive overload are new occupational hazards not contemplated by the code.

Thus, while the Labour Codes symbolize modernization in structure, they remain **anachronistic in substance**, rooted in the industrial rather than the digital age.

5. Comparative Legal Analysis: Global Regulatory Lessons

(a) European Union

The **EU Artificial Intelligence Act (2021)** establishes a risk-based framework for AI governance. “High-risk” systems — including those used in employment, worker management, and access to self-employment — must ensure human oversight, transparency, and explainability.

This act could guide India in integrating *algorithmic accountability* within labour law.

(b) United Kingdom

The UK’s **Information Commissioner’s Office (ICO)** issued guidance on “AI and Data Protection” (2020), mandating data minimization, transparency, and fairness in workplace AI. In **Uber BV v. Aslam**, the judiciary reinforced the principle that control — even digital — constitutes employment.

(c) United States

While lacking comprehensive AI legislation, the **Algorithmic Accountability Act (2022)** requires organizations to audit automated decision systems for bias and discrimination. It introduces the concept of “algorithmic impact assessments” — a useful tool India could adapt within labour inspection mechanisms.

(d) International Labour Organization (ILO)

The ILO (2023) emphasizes that technological change must align with “Decent Work” principles — opportunity, equity, security, and dignity. The organization advocates human-centered transition strategies, urging states to embed AI governance within social dialogue frameworks.

Together, these examples suggest that **India’s labour regulation needs a dual framework:**

1. A **statutory recognition of algorithmic decision-making** as a locus of managerial control.
2. A **rights-based governance mechanism** ensuring transparency, fairness, and redress for AI-mediated decisions.

6. Doctrinal Reinterpretation: Towards a “Digital Labour Jurisprudence”

Indian labour jurisprudence is fundamentally anthropocentric — built on doctrines of control, dependency, and industrial organization. AI necessitates a **reconstruction of these doctrines** around technological realities.

(a) Reinterpreting Employment Tests

The “control test,” “integration test,” and “economic dependence test” can be recalibrated to consider algorithmic indicators of supervision and economic subordination. For example, a delivery worker whose performance is algorithmically rated and assigned tasks via an app could be presumed an employee for regulatory purposes.

(b) Vicarious Liability of Algorithms

Traditional tort and contract principles attribute liability to human actors. However, when harm results from an autonomous AI system, establishing intent or negligence becomes complex. Scholars like **Pagallo (2018)** propose “electronic personhood” in limited contexts — a controversial but necessary debate for labour law, where accountability must remain human-centric but technologically responsive.

(c) Collective Rights and Digital Unionism

AI also challenges the exercise of collective labour rights. Workers in digital platforms are fragmented and often isolated. Yet, as seen in **Spain’s Rider Law (2021)**, the state can legislate mandatory employee classification and algorithmic transparency. India could similarly empower **digital trade unions** under the *Industrial Relations Code* to negotiate algorithmic fairness.

7. The Future Trajectory: From Regulation to Governance

Labour law’s response to AI cannot be limited to regulation alone — it must evolve into **governance**, emphasizing continuous oversight, ethical alignment, and participatory mechanisms.

- **Algorithmic Transparency:** Employers and platforms should be mandated to disclose how algorithms make employment decisions.
- **Right to Explanation:** Workers affected by automated decisions should have a legal right to understand and contest those decisions.
- **Ethical AI Certification:** India could establish an *AI Ethics Board for Labour*, drawing from OECD principles, to audit workplace technologies.
- **Integration with Data Protection:** Labour codes must cross-reference data privacy statutes to ensure protection against invasive surveillance.

As **Kritika Choudhury (2023)** notes, “Labour law must cease to chase technology; it must co-evolve with it.” This requires embedding dynamic regulatory clauses within labour legislation, ensuring adaptability as AI capabilities expand.

8. Summary of Analytical Findings

1. **Algorithmic management qualifies as digital control** under Indian labour doctrines.
2. **Existing labour codes lack enforceable mechanisms** for AI-related accountability or worker redress.

3. **Judicial doctrines must evolve** to recognize algorithmic supervision within the employer–employee framework.
4. **International models (EU, ILO)** demonstrate that human oversight and transparency are critical to ethical AI in labour.
5. **Constitutional principles of dignity, equality, and livelihood** must guide India’s adaptation of labour law to technological realities.

Conclusion

The integration of Artificial Intelligence (AI) into the workplace represents a paradigm shift that challenges the **foundations of Indian labour jurisprudence**. Based on the doctrinal and comparative analysis conducted, the following key findings emerge:

1. **AI disrupts the traditional employment relationship.**
The classical notions of control, supervision, and dependency that define the employer–employee relationship in Indian law are inadequate to capture the realities of AI-mediated work. The digitalization of control through algorithmic management satisfies the functional test of supervision but escapes formal legal recognition.
2. **Existing Indian labour codes insufficiently address AI-related challenges.**
The 2020 Labour Codes—though significant for structural consolidation—remain rooted in industrial-age concepts. Only the *Code on Social Security, 2020* recognizes “gig” and “platform” workers, but without attaching enforceable rights. The lack of explicit provisions on AI surveillance, data protection, and algorithmic accountability leaves a major regulatory vacuum.
3. **Judicial adaptation has yet to occur.**
Unlike jurisdictions such as the UK (e.g., *Uber BV v. Aslam*), Indian courts have not yet adjudicated on algorithmic management or AI-driven employment decisions. However, the constitutional jurisprudence of dignity and livelihood (as in *Olga Tellis, Puttaswamy*) offers a normative foundation to interpret labour rights expansively.
4. **Global models offer replicable lessons.**
The **EU Artificial Intelligence Act (2021)**, **OECD AI Principles (2021)**, and **ILO Decent Work Framework (2023)** collectively emphasize human oversight, transparency, and risk assessment. These can guide India toward developing an ethical AI governance model embedded within its labour regulation system.
5. **AI introduces new dimensions of inequality and bias.**
Algorithmic decision-making, if left unregulated, risks replicating societal prejudices through data-driven bias. Workers, especially from informal or marginalized backgrounds, may face automated exclusion or wage discrimination.

6. Constitutional morality must guide labour modernization.

The constitutional guarantees of equality (Article 14), freedom (Article 19(1)(g)), and dignity (Article 21) provide a strong jurisprudential basis for reform. Labour law, in adapting to AI, must not only promote efficiency but also safeguard human welfare and justice.

7. Urgent need for interdisciplinary regulation.

AI in employment touches multiple legal domains—data protection, industrial relations, and human rights. Therefore, future regulation should adopt an integrated governance approach, incorporating ethics, technology, and labour justice under a unified framework.

In essence, the study reveals that **Indian labour law must evolve from an industrial to a digital constitutional framework**, ensuring that technology remains a tool for empowerment, not exploitation.

Artificial Intelligence stands as both an opportunity and a threat to the world of work. For India, a rapidly digitalizing economy with a vast informal workforce, AI's arrival necessitates **urgent legal and ethical recalibration**.

1. Reconceptualizing Labour Jurisprudence

The current legal definitions of “employer” and “employee” must evolve to include **algorithmic control** and **data-driven supervision** as forms of managerial authority. The law should presume an employment relationship wherever technological systems dictate the terms of work.

2. Embedding Algorithmic Accountability

India must legislate mandatory **algorithmic impact assessments (AIAs)** in workplaces deploying AI systems. Employers should be required to disclose decision-making logic, audit data inputs, and allow workers the **right to explanation and redress** for adverse automated outcomes.

3. Integrating AI Governance into Labour Codes

Future amendments to the **Code on Social Security, 2020** and **Industrial Relations Code, 2020** should include:

- Binding obligations on digital platforms to ensure minimum wages, insurance, and transparency;
- Legal recognition of algorithmic unfair labour practices;
- Frameworks for collective bargaining in digital environments.

4. Institutional Reform and Oversight

Establishing a **National Commission on AI and Labour (NAIL)** under the Ministry of Labour and Employment could ensure continuous evaluation of technological impacts on employment. The commission should collaborate with NITI Aayog, the ILO, and data protection authorities.

5. Protecting Worker Data and Privacy

The **Digital Personal Data Protection Act, 2023** must be harmonized with labour codes to regulate workplace surveillance and AI profiling. Consent-based data processing, anonymization, and transparency should be mandatory for any AI tool used in hiring or monitoring employees.

6. Promoting Ethical AI and Human Oversight

Inspired by the **EU AI Act**, India can develop a risk-based framework where high-risk AI systems in employment require **human-in-the-loop oversight**. This would ensure that no worker faces purely automated decision-making.

7. Strengthening Social Security for the Digital Workforce

Platform and gig workers, heavily influenced by AI algorithms, must be brought under **mandatory social security schemes**, including provident fund, health insurance, and maternity benefits.

8. Encouraging Digital Unionization

Labour law reform should facilitate **digital collective action**, allowing platform workers to organize through online unions and challenge algorithmic practices. The Industrial Relations Code can be expanded to recognize these modern forms of representation.

9. Judicial Responsiveness and Progressive Interpretation

Indian courts, guided by constitutional values, must adopt **purposive interpretation** to extend protections to workers affected by AI. Just as *Vishaka v. State of Rajasthan (1997)* created guidelines in the absence of legislation, the judiciary could evolve interim principles for algorithmic fairness until statutory reform occurs.

10. Towards a Digital Constitutionalism in Labour Law

Ultimately, the transformation induced by AI calls for a **digital constitutionalism** — a normative framework where technology operates under the rule of law and in service of human welfare. Labour law, as a discipline of social justice, must lead this transformation by embedding ethical AI principles into its doctrinal fabric.

In conclusion, India's labour law must transcend its industrial legacy to embrace a human-centered digital future. Balancing innovation with dignity, automation with accountability, and progress with justice will determine the resilience and fairness of the Indian labour system in the age of Artificial Intelligence.

References

1. Aloisi, A. (2022). *Algorithmic bosses, blurred responsibilities, and digital labour rights*. *International Labour Review*, 161(2), 345–366.
2. Babu, M. (2021). *Technology, labour rights, and legal reform in India*. *Indian Journal of Labour Studies*, 8(3), 112–129.
3. Choudhury, K. (2023). *Labour law in the digital era: From regulation to governance*. *Economic and Political Weekly*, 58(21), 45–53.
4. De Stefano, V. (2016). *The rise of the “just-in-time workforce”: On-demand work, crowdwork, and labour protection in the gig-economy*. *Comparative Labour Law & Policy Journal*, 37(3), 471–504.
5. De Stefano, V. (2020). *Algorithmic management and collective bargaining*. ILO Working Paper No. 10.
6. Eubanks, V. (2018). *Automating inequality: How high-tech tools profile, police, and punish the poor*. St. Martin’s Press.
7. Freeman, R. (2018). *Work and automation: The digital transformation of labour relations*. Cambridge University Press.
8. International Labour Organization (ILO). (2021). *World Employment and Social Outlook 2021: The role of digital labour platforms in transforming the world of work*. Geneva: ILO.
9. International Labour Organization (ILO). (2023). *AI and the Future of Work: Decent Work in the Digital Economy*. Geneva: ILO.
10. Mantouvalou, V. (2020). *Artificial intelligence and workers’ rights: Human dignity in the algorithmic workplace*. *Human Rights Law Review*, 20(3), 475–498.
11. NITI Aayog. (2018). *National Strategy for Artificial Intelligence: #AIForAll*. Government of India.
12. Organisation for Economic Co-operation and Development (OECD). (2021). *OECD principles on artificial intelligence*. Paris: OECD.
13. Pagallo, U. (2018). *The law of robots: Crimes, contracts, and torts*. Springer.
14. Rani, U., & Furrer, M. (2021). *Digital labour platforms and the future of work: Towards decent work in the online world*. ILO Research Paper No. 17.
15. Veale, M., & Zuiderveen Borgesius, F. (2021). *Demystifying the EU Artificial Intelligence Act*. *Computer Law Review International*, 22(4), 97–112.
16. Uber BV v. Aslam, [2021] UKSC 5 (United Kingdom Supreme Court).
17. Puttaswamy v. Union of India, (2017) 10 SCC 1 (Supreme Court of India).
18. Olga Tellis v. Bombay Municipal Corporation, (1985) 3 SCC 545 (Supreme Court of India).
19. Dharangadhra Chemical Works Ltd. v. State of Saurashtra, AIR 1957 SC 264.