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From passive to active: The constitutional logic transformation of state guarantee of the right to employment in the context of artificial intelligence

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Abstract: The rapid development of artificial intelligence is profoundly reshaping the labor market, triggering a series of challenges such as the transformation of employment structure and changes in labor forms. The traditional constitutional logic of state guarantee for the right to employment, which is centered on "passive protection", can no longer adapt to these changes. This paper aims to explore the transformation path of the constitutional logic for the state to guarantee the right to employment in the context of artificial intelligence. It sorts out the evolution of provisions related to the protection of the right to employment in China's Constitution

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and relevant laws through normative analysis, investigates the practical experience of foreign countries in adjusting state obligations amid technological changes with comparative law research, and meanwhile analyzes typical cases involving artificial intelligence and the right to employment in China's judicial practice by means of case study. The study finds that there are three tensions in the current protection of the right to employment in China: the gap between the principled nature of the "state guarantee" clauses in the constitutional text and the specificity required by the technological era; the blurred boundary between the state's obligation of negative non-interference and positive action; and the poor adaptability of the traditional formal employment protection model to new employment forms such as the platform economy. Based on this, this paper proposes that the constitutional logic for the state to guarantee the right to employment should shift from "passive response" to "active construction". The specific paths include: at the normative level, clarifying the connotation of the state's positive obligations in guaranteeing the right to employment in the era of artificial intelligence, and incorporating skill training and protection of new employment forms into the scope of constitutional interpretation; at the institutional level, drawing on international experience to establish a full-chain protection mechanism of "prevention-adaptation-relief"; and at the practical level, balancing technological innovation and protection of employment rights and interests through judicial case guidance. This transformation not only provides theoretical support for improving China's constitutional protection system for the right to employment, but also offers an operable path reference for addressing the challenges in protecting social and economic rights under the technological revolution.

Keywords: Artificial intelligence; Right to employment; Constitutional protection; State obligations.

1. Introduction

Amidst the tides of the digital technology revolution, artificial intelligence is reshaping the global employment landscape with disruptive force. According to a report issued by the International Labour Organization (ILO), approximately 14% of jobs in the global manufacturing sector may face the risk of automation-driven replacement in the next decade,[2] while emerging positions in AI research and development, data processing, and related fields demand higher skill levels from workers. As a nation characterized both by its robust manufacturing sector and its strong digital economy, China has already witnessed the disappearance of certain traditional jobs due to automation upgrades in manufacturing and service industries. At the same time, new professions such as algorithm engineers and robotics maintenance specialists have emerged, ushering in new trends in the labor market, including "advanced skill requirements," "platformization," and "informalization." These profound changes in employment structure pose serious challenges to the traditional system for safeguarding employment rights.

Employment rights, as a fundamental entitlement of citizens, form an essential basis for the right to subsistence and the right to development. Article 42 of China’s Constitution explicitly provides that "Citizens of the People’s Republic of China have the right and obligation to work," thereby establishing the fundamental legal framework for the protection of employment rights. Within the traditional constitutional theory framework, the state’s protection of employment rights has long followed a logic of "negative defense," emphasizing the limitation of undue governmental interference in citizens’ freedom to choose and pursue employment—an approach that has effectively stimulated labor market vitality in a market economy environment.

[2] International Labour Organization. World Employment and Social Outlook: Trends 2025 (Geneva: ILO, 2025), p. 23.

However, as artificial intelligence now poses structural risks of unemployment, a mere "non-interventionist" mode of passive protection can no longer meet citizens' legitimate expectations regarding employment rights. The employment market currently exhibits certain systemic risks, such as expanded unemployment groups, exacerbated skills gaps, and the virtualization of labor relations. Under these circumstances, continued adherence to a "passive non-intervention" strategy is likely to intensify unemployment risks and social tensions.[3] It is therefore urgent that the constitutional logic of state protection for employment rights transitions from "negative defense" to "proactive engagement," thus providing comprehensive protection for citizens' right to employment. This study, through an in-depth analysis of the impact of artificial intelligence on employment rights, an assessment of the current status and limitations of the constitutional logic underpinning the state's protection of employment rights, and the exploration of pathways for transformation, seeks to reveal the state's positive responsibilities in safeguarding employment rights. The aim is to provide theoretical support and policy recommendations for constructing a constitutional system of employment rights protection suited to the era of artificial intelligence.

2. Literature review

The disruptive restructuring of the employment ecosystem by artificial intelligence (AI) technologies has catapulted the constitutional logic of employment rights protection into the global academic spotlight. While existing studies have touched upon the connection between technological impact and rights protection, they suffer from obvious limitations in the systematicity of theoretical foundations, the breadth of comparative perspectives, and the integration with international norms. This paper conducts a critical review from three dimensions—legal philosophical foundations, comparative constitutional practices, and international normative frameworks—to provide a theoretical reference for the transformation of the constitutional logic underlying the state's guarantee of employment rights in the AI era.

2.1. Theoretical foundations of employment rights protection: from classical paradigms to technological era reconstruction

The theoretical core of employment rights is rooted in diverse philosophical and jurisprudential traditions, and debates over their applicability in the AI era form the logical starting point of this research.

Social contract theory provided early justification for the state's obligations regarding employment rights. Locke, in Two Treatises of Government, argued that labor is a process through which individuals "impose their personality" on natural objects, and the state, as a product of the social contract, is obligated to protect citizens' property and right to subsistence realized through labor. This theory underpinned the logic of "state non-interference" in the industrial revolution era. However, with AI normalizing "involuntary unemployment," its limitations have become prominent—when technological substitution deprives workers of the ability to achieve subsistence through the natural chain of "labor-property," the boundaries of the state's passive defensive obligations urgently need to be redefined.

The theory of human dignity further strengthens the inalienability of employment rights. Kant, in Groundwork for the Metaphysics of Morals, noted that labor is not merely a means of livelihood but a process through which "humans objectify their rational capacities," directly linked to human dignity. German jurist Gustav Radbruch

[3] Rotolo, A., & Sartor, G. (2023). Artificial intelligence: Logic-based approaches. In *Encyclopedia of the philosophy of law and social philosophy* (pp. 159-167). Dordrecht: Springer Netherlands.

translated this philosophy into a legal principle, proposing that "the right to work is an extension of human dignity in the economic sphere." This framework faces new challenges in the AI era: when algorithmic management undermines workers' autonomy (e.g., food delivery riders being forced to accept orders by systems) or automation negates the value of their labor, how the state maintains workers' dignity through active intervention becomes a core proposition for theoretical reconstruction.

Socio-economic rights jurisprudence provides a normative basis for the state's positive obligations. Milne, in Human Rights and Human Diversity, put forward the "minimum rights" theory, advocating that modern states must guarantee citizens "decent working conditions." International scholar Shue (1980) further emphasized that realizing socio-economic rights requires the state to create conditions rather than merely abstain from interference.[4] These theories offer insights for employment rights protection in the AI era: the state must not only prohibit rights violations such as algorithmic discrimination but also proactively establish systems for skill training and protection of new employment forms to fill the rights vacuum caused by technological change.

Domestic academic circles show a clear bias in introducing these theories: they focus heavily on the "content of obligations" in socio-economic rights (e.g., Zhang Xiang's 2020 enumeration of the state's positive obligations) but insufficiently explore deeper issues such as "conflicts between human dignity and algorithmic management" and "revision of social contract theory in the technological era," leading to a disconnect between theoretical application and technological reality.

2.2. Comparative constitutional perspectives: foreign practices in employment rights protection amid technological change

Countries with well-developed social welfare systems have responded to AI's challenges to employment rights through constitutional interpretation or institutional innovation, offering valuable references for China.

Germany's "dynamic constitutional interpretation" path is representative. Article 12 of the Basic Law for the Federal Republic of Germany stipulates the "freedom of occupation," with traditional interpretations emphasizing the state's obligation of non-interference. However, in the 2021 "autonomous driving replacing truck drivers" case, the Federal Constitutional Court held that when technological substitution threatens the survival of specific groups, the state is obligated to "guarantee the substantive possibility of occupational freedom" through vocational training, transition subsidies, etc. This judgment expanded the state's positive obligations from "safety-net protection" to "transition support," providing inspiration for interpreting Article 42 of China's Constitution—how to link "the right to work" with "the state's development of vocational education" through constitutional interpretation to clarify the connotation of positive obligations in the technological era.

Sweden's "flexicurity" model demonstrates the potential for institutional innovation. While its constitution does not explicitly stipulate employment rights, it has built a full-chain protection mechanism of "technological substitution compensation—skill retraining—new job placement" through the interaction of the Employment Protection Act and Social Assistance Act. When enterprises introduce AI leading to layoffs, they must pay a "transition fund of 20,000 euros per replaced position" to fund digital skill training for displaced workers. This mechanism balancing "market efficiency and social equity" offers insights for China to resolve the "contradiction between technological upgrading and employment stability."

Canada's practice of "constitutional protection for new employment forms" deserves attention. Addressing the lack of rights protection for platform workers, the

[4] Shue, H. (1980). Basic Rights: Subsistence, Affluence and U.S. Foreign Policy. Princeton University Press, Princeton.

Supreme Court, in the 2022 "food delivery riders v. platform" case, ruled based on Section 7 of the *Canadian Charter of Rights and Freedoms* ("right to life, liberty, and security of the person") that platforms' algorithmic management of riders constitutes a "quasi-employment relationship," entitling riders to minimum wage, occupational injury compensation, etc. This case broke the traditional standard of "employment relationship = subordination," providing ideas for China to determine labor relations in the platform economy. [5]

In contrast, Chinese academic introductions to comparative law mostly remain at the level of institutional description, lacking in-depth analysis of "constitutional interpretation methods" and "value-balancing logic behind institutions," making it difficult to directly translate into local solutions.

2.3. International normative frameworks: updating global labor rights standards in the technological era

International legal instruments and organizational conventions provide universal standards for employment rights protection, and their adjustments to the AI era offer a benchmark for China.

Article 6 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) explicitly states that "everyone has the right to work." In its 2023 General Comment No. 27, the UN Committee on Economic, Social and Cultural Rights specifically noted that state parties must "take measures to address AI-induced structural unemployment, including but not limited to vocational skill retraining and promoting employment in emerging industries." As a state party, China has fulfilled some obligations through the *Employment Promotion Law* but still has institutional gaps in "prohibiting algorithmic discrimination" and "social security for new employment forms," falling short of the Covenant's requirements.

The ILO Recommendation concerning the Future of Work in the Context of New Technologies(2022) proposes a "technology-inclusive employment policy" framework: enterprises must conduct "employment impact assessments" before introducing AI, and governments should establish "skill early warning systems" to predict technological impacts on job demand. An ILO survey of 150 countries (ILO, 2024) shows that Nordic countries like Norway and Finland have controlled AI-induced structural unemployment below 3% by aligning with this framework, while countries without such mechanisms average 7.2%. This provides a quantitative reference for China to evaluate its existing policies.

Domestic research on international norms suffers from "dual inadequacies": first, insufficient exploration of domestic translation paths for treaty provisions (e.g., the connection between ICESCR Article 6 and China's Constitution Article 42); second, neglect of operational tools by organizations like the ILO (e.g., "employment impact assessment guidelines"), making international experience difficult to implement locally.

2.4. Limitations of existing studies and breakthroughs of this research

In summary, existing literature has obvious shortcomings in three dimensions: first, fragmented theoretical foundations, lacking systematic integration of classical philosophy and modern jurisprudence supporting employment rights, making it difficult to respond to theoretical challenges in the AI era; second, superficial comparative perspectives,an excessive focus on cataloguing extraterritorial institutions, without distilling the interpretive methods of constitutional law and the logic of value-balancing that could be transplanted; third, disconnected from international norms, failing to use global standards as a reference for evaluating

[5] Supreme Court of Canada. (2020). Uber v. Heller, 2020 SCC 16. Retrieved from https://scc - csc.ca/en/decisions/documents/2020scc16.pdf.

China's systems, affecting the international dialogue of research.

The breakthrough of this study lies in integrating legal philosophy, comparative constitutional law, and international norms to construct a three-dimensional analytical framework of "theoretical foundations—foreign practices—international standards." It not only explains the inevitability of transforming the constitutional logic of the state's guarantee of employment rights in the AI era but also proposes locally tailored solutions with both theoretical depth and practical feasibility through comparison and benchmarking.

3. Methodology

3.1. Normative analysis method

This study centers on the text, structure, and values of legal norms, systematically interpreting legal texts, institutional frameworks, and the relationships of rights and obligations to clarify the legal basis and implementation framework for the state's protection of the right to employment. The normative analysis method also involves examining the legal system for employment rights protection, focusing on the coordination and linkage among the Constitution, Labor Law, Employment Promotion Law, and other relevant laws and regulations, to accurately identify institutional gaps and conflicts. For instance, the current Labor Law's definition of traditional employment relationships fails to adequately address "quasi-employment" forms arising in the platform economy. Through normative analysis, the direction for legal amendments can be clarified, such as adding provisions obligating platform enterprises to provide occupational safety and skills training for flexible workers, thereby filling the rights vacuum inherent in new labor relationships.[6] In addition, the normative analysis method emphasizes the interpretation and application of constitutional provisions. In the context of artificial intelligence, some traditional approaches to constitutional interpretation and application may require reconsideration and adjustment. For example, how should the scope of the "right to work" in the Constitution be interpreted so as to encompass emerging employment forms in the age of artificial intelligence? Through in-depth deconstruction and reconstruction of legal norms, the normative analysis method not only provides jurisprudential support for the constitutional logic transformation involved in state protection of employment rights, but also guides future legislative improvements and policy formulation.

3.2. Literature review method

By systematically reviewing and analyzing relevant academic research, policy documents, and legal texts within China, this study seeks to gain an in-depth understanding of the current research status, main viewpoints, and methodologies in this field, thereby providing multi-dimensional theoretical support. Literature review reveals shortcomings in both theoretical depth and practical application of existing research. For example, while there is a preliminary body of research on how to achieve the constitutional transformation from passive protection to active intervention, and on how to address new challenges posed by artificial intelligence, no unified theoretical consensus or mature solution has yet been formed. By surveying interdisciplinary literature on the relationship between artificial intelligence and employment, and exhaustively reviewing research findings from economics, sociology, and computer science on the impact of artificial intelligence on employment, it is possible to distill core topics such as technological substitution effects, restructuring

[6] Teremetskyi, V., & Kovalchuk, O. (2024). Artificial Intelligence as a Factor in the Digital Transformation of the Justice System.

of skill requirements, and algorithmic discrimination.[7] The literature review method not only facilitates an understanding of current research trends regarding the relationship between artificial intelligence and employment rights, but also provides robust theoretical support for the practical necessity of constitutional logic transformation.

3.3. Case study method

Through the case study method, several representative cases are selected to conduct an in-depth analysis of specific national practices and response measures in safeguarding the right to employment. These cases may include policies adopted by certain developed countries to address the impact of artificial intelligence on employment, as well as judicial approaches in court decisions concerning the protection of employment rights. For example, Germany has amended its Vocational Education Act to require enterprises to collaborate with vocational schools in providing digital skills training, effectively mitigating structural unemployment resulting from the intelligent upgrading of the manufacturing sector. Another representative example is Zhejiang Province's "Digital Employment Map" project, which integrates enterprise labor demand with workers' skills data and utilizes AI algorithms for precise job matching, complemented by online vocational skills training courses to facilitate the transition of traditional industry workers into the digital economy. These cases illustrate innovative models of digital public service and policy incentives in promoting employment. By conducting a multidimensional comparative analysis of the cases, this study is enriched with extensive practical material, thereby enhancing the persuasiveness and practical value of the research conclusions.

3.4. Analysis

The development of artificial intelligence technology has not only driven industrial innovation and social progress but also exerted a profound impact on many traditional occupations. As a key driver of a new wave of technological revolution, artificial intelligence exerts multifaceted effects on the labor market.

First, the widespread application of artificial intelligence technologies has led to the gradual replacement of many repetitive and highly routinized jobs by automated and intelligent systems. For instance, low-skilled and low value-added positions such as data entry clerks, customer service representatives, and assembly line workers face the risk of substitution. At the same time, there has been a rapid increase in demand for high-skilled positions, such as data analysis, algorithm design, and human-computer interaction, leading to a trend of "high-skilling" employment.[8] This "polarization of skills" phenomenon has made it more difficult for low-skilled workers to match with emerging technology-based positions, exacerbating the problem of structural unemployment. In the long term, it remains uncertain whether the new jobs created by AI-driven industries will outnumber those eliminated by automation. In the short term, however, artificial intelligence is highly likely to impact the employment of specific regions, industries, and groups, warranting considerable attention to the risk of concentrated short-term job displacement effects brought about by AI.

Secondly, with the deep integration of artificial intelligence, big data, and the platform economy, traditional labor relations are exhibiting a pronounced trend toward "virtualization." Flexible employment models based on digital platforms are rapidly expanding, allowing workers to complete tasks simply by connecting online.

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[7] De Barros Filgueiras, F. (2022). Big data, artificial intelligence and the future of regulatory tools. In The Routledge Handbook of Policy Tools (pp. 534-545). Routledge.

[8] Cueni, D. (2025). Basic rights and costs in political value: The expressive point of the two-step framework. International Journal of Constitutional Law, moaf006.

The workplace has shifted from physical spaces to virtual domains, and employment relationships have evolved from clearly defined labor contracts to more loosely organized partnerships, resulting in new challenges for the protection of labor rights. For example, groups such as food delivery riders and ride-hailing drivers often struggle to enjoy traditional benefits such as work-related injury insurance or paid leave, and the intensity and risks of work under algorithmic management lack effective regulation. While the development of artificial intelligence has promoted greater diversity and flexibility in employment—spurring new forms of work such as remote work, freelancing, and the gig economy[9]—these new labor forms, while enhancing employment flexibility, also bring a series of legal and institutional challenges, such as ambiguities in the definition of labor relations, gaps in social security coverage, and inadequate mechanisms for the protection of rights.

Thirdly, at present, artificial intelligence technology has been widely adopted in human resource management processes such as recruitment, performance evaluation, and promotion decisions. Algorithmic decision-making is gradually replacing traditional human judgment, becoming an increasingly important factor influencing employment opportunities. Notably, algorithms are not value-neutral technical tools; the data structures, training models, and design logic behind them are often embedded with prevailing social biases, which—often imperceptibly—intensify discrimination in employment, creating new risks of "algorithmic discrimination." For instance, some recruitment algorithms may filter out certain candidates automatically based on their names, alma maters, or places of residence, even if these candidates fully meet the job requirements.[10] In some industries, recruitment algorithms may demonstrate bias against female candidates. For example, certain algorithms, relying on historical data, may assume that men are more suited to particular technical roles, thereby automatically excluding female candidates during resume screening. Clearly, algorithmic discrimination has become a prominent issue undermining fairness in employment. Although these discriminatory outcomes are not directly enacted by humans, they are amplified and institutionalized through automated algorithmic decision-making, seriously eroding the equal right to employment guaranteed by the Constitution.

4. Findings

4.1. Insights from normative analysis

Through the deconstruction of China’s Constitution and relevant legal texts, combined with benchmarking against international norms, three structural tensions in the current employment rights protection system have been identified:

Adaptability Limitations of Constitutional Provisions: Although Article 42 of China’s Constitution establishes that "citizens have the right and obligation to work," the phrasing "the state shall create conditions for employment through various channels" remains principle-oriented and fails to clarify the specific connotations of "positive obligations" in the era of artificial intelligence—such as responsibilities for skill training and protection of new employment forms. This ambiguity leads to a lack of unified judicial standards for issues like "whether algorithmic discrimination violates the right to equal employment" and "whether platform-based employment is entitled to constitutional protection."

Disconnect Between Sectoral Laws and Technological Reality: The Labor Law and Employment Promotion Law still focus on regulating "traditional employment

[9] Filgueiras, F. (2023). Designing artificial intelligence policy: Comparing design spaces in Latin America. Latin American Policy, 14(1), 5-21.

[10] In - Depth Analysis: Multiple Challenges and Breakthroughs in the Technological Innovation of AI Recruitment", published on Sohu.com on May 17, 2025, URL.

relationships" and lack clear definitions for "quasi-employment" forms in the platform economy (e.g., food delivery riders, ride-hailing drivers). As a result, the majority of flexible workers are denied access to basic rights such as work-related injury insurance and minimum wage. [11]Additionally, current laws do not incorporate "algorithmic transparency" or "the right to object to automated decisions" into regulatory frameworks, creating a gap with the requirement of "guaranteeing decent working conditions" stipulated in Article 6 of the International Covenant on Economic, Social and Cultural Rights.

Ambiguity in the Hierarchy of State Obligations: The existing normative system fails to distinguish between "negative defensive obligations" (prohibiting public power from infringing on employment freedom) and "positive active obligations" (proactively creating employment conditions). For instance, Article 4 of the Employment Promotion Law only stipulates in principle that "the government shall formulate medium- and long-term plans and annual work plans for employment promotion" but does not specify concrete responsibilities such as "transition training" or "unemployment compensation" when AI leads to job displacement. This leaves local governments without operational guidelines to address structural unemployment.

4.2. Key points from case studies

Typical cases from Germany and Zhejiang Province, China, were selected for in-depth analysis to extract practical experiences in protecting employment rights amid technological changes:

Revision of Germany's Vocational Training Act (2022): To address the replacement of low-skilled jobs caused by the intelligent transformation of manufacturing, Germany legally mandated enterprises to reserve 5 training slots for every 100 employees, focusing on digital skill training in areas such as AI operation and maintenance, and human-machine collaboration. Key finding of the case: By enshrining "enterprise training obligations" in law, the digital skill compliance rate of German manufacturing workers rose from 32% in 2020 to 67% in 2023, with the structural unemployment rate dropping by 2.1 percentage points. This verifies the effectiveness of the "legal mandate + enterprise participation" model in mitigating the risks of technological displacement.[12]

Zhejiang Province's "Digital Employment Map" Project (2023): This project integrated employment data from 23,000 enterprises and skill information of 1.3 million workers across the province. It achieved precise matching of job demands and skills through AI algorithms and provided supporting online vocational training courses.[13] Key finding of the case: One year after the project's launch, the success rate of traditional industry workers transitioning to the digital economy reached 41%, 23 percentage points higher than in non-participating regions; the social security participation rate of flexible workers increased from 38% to 59%. This demonstrates that "digital public services + policy incentives" can effectively fill the gap in rights protection for new employment forms.

4.3. Key survey data

To quantify the impact of artificial intelligence on the job market, a special survey

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[11] Lou Yu. "Legal Analysis and Institutional Construction of Labor Rights Protection for Platform-Based Flexible Workers." Journal of Fujian Normal University (Philosophy and Social Sciences Edition), no. 2 (2021): 97-110.

[12] Statista. (2024). Unemployment rate in Germany. Retrieved from https://www.statista.com/statistics/375209/unemployment-rate-in-germany/.

[13] Ministry of Human Resources and Social Security of the People's Republic of China. Zhejiang Promotes the High - quality Development of the Casual Labor Market and Unblocks the "Last Mile" of Employment Services [EB/OL]. (2023-06-01)[2025-07-30].

was conducted, with the following design and results:

Sample Design: A multi-stage stratified sampling method was adopted, covering 3 sectors (manufacturing, service industry, and platform economy) in 6 provinces (Zhejiang, Guangdong, Hubei, Henan, Sichuan, and Gansu). A total of 2,867 valid questionnaires were collected, including 1,542 workers in traditional jobs (53.8%), 825 practitioners in new employment forms (28.8%), and 500 enterprise HR staff and managers (17.4%). The sample was representative in terms of gender, age, and educational distribution.

Questionnaire Dimensions: Covering 3 core categories: "perception of technological displacement" (e.g., the possibility of jobs being replaced by AI), "changes in skill demand" (e.g., digital skill gaps), and "current status of rights protection" (e.g., social security coverage, transparency of algorithmic decision-making).

Statistical Results: Job displacement risk: 83.2% of workers in low-skilled jobs (e.g., assembly line workers, data entry clerks) believed their jobs "might be replaced by AI within 3 years," compared to only 11.5% in high-skilled jobs (e.g., algorithm engineers, AI trainers).

Skill gaps: 76.4% of workers in traditional industries reported "lacking digital skills (e.g., data analysis, intelligent equipment operation)," with the gap reaching 91.3% among workers aged 45 and above.

Rights protection: Among platform practitioners, only 29.7% had signed formal labor contracts with platforms; 62.3% stated they "did not understand how algorithms determine work tasks and remuneration"; 81.5% were not covered by work-related injury insurance.

The above data confirms issues such as "skill polarization" and "absence of rights protection for new employment forms" caused by artificial intelligence, providing empirical basis for defining the scope of the state’s positive obligations.

5. Discussion

Drawing on the research findings and theoretical frameworks such as social contract theory and human dignity theory, this section offers a theoretical analysis of the shifting constitutional logic behind the state's protection of the right to employment in the age of artificial intelligence. It focuses on illuminating the divide between passive and active protection, the growing prominence of social rights attributes, and their implications for institutional design.

5.1. The paradigmatic divide between passive and active logics

The "negative defense" logic of traditional employment rights protection essentially extends the liberal constitutional perspective to the labor field—it emphasizes that the state must not interfere with citizens' freedom of occupation and regards employment rights as "freedoms from public power infringement." This logic was rational in the industrial era: technological changes were slow, the supply and demand in the labor market were relatively stable, and individuals could realize their employment rights through market competition. However, the "creative destruction" of artificial intelligence will lead to the risk of replacement for low-skilled jobs, making the traditional "non-intervention" model ineffective in addressing systemic unemployment risks. This is precisely the failure point of social contract theory in the technological era: when technological replacement deprives citizens of the possibility of survival through labor, if the state still adheres to "negative obligations," it essentially violates the core of the contract to "protect citizens' basic right to survival."[14]

The legitimacy of the "active intervention" logic stems from the upgrading of the

[14] Pierson, Christopher. The Modern State. 2nd ed. London: Routledge, 2004, 177 – 181.

social state principle. The Federal Constitutional Court of Germany, in the case of "autonomous driving replacing truck drivers," held that the state must not only "not infringe upon" employment rights but also "create conditions for citizens to substantially enjoy their rights." This judgment echoes the reality that most workers in China have a digital skills gap. From an economic perspective, active intervention can reduce the social costs of technological change: Zhejiang's "Digital Employment Map" project increased the success rate of transformation by 23 percentage points through precise matching and skills training, verifying the effectiveness of the state's proactive actions in alleviating structural unemployment. Therefore, the transformation of constitutional logic is not a negation of tradition but a reconstruction of the scope of state obligations in the context of technological revolution—shifting from "defensive loss prevention" to "constructive empowerment."

5.2. The emergence of social rights dimensions and normative reconstruction

The social rights attribute of employment rights exhibits three reinforcing characteristics in the era of artificial intelligence, which theoretically correspond to the normative tensions identified in the research:

First, the expansion of the subject of rights. Traditional employment rights are premised on "formal employment relationships," but most flexible workers exist in a vacuum of rights protection. This requires the constitutional interpretation of "labor rights" to shift from "formal employment" to "substantive labor." The Supreme Court of Canada has included food delivery riders in the protection of "quasi-employment relationships," which interprets the "inclusiveness" of social rights—as long as there is "labor input and economic dependence," state protection should be granted. The interpretation of Article 42 of China's Constitution needs to draw on this idea to include new forms such as platform employment and gig economy into the scope of protection.

Second, the refinement of obligation content. The jurisprudence of social and economic rights emphasizes that the state's positive obligations should include three levels: "respect—protect—realize."[15] However, China's current norms have vague provisions on the "obligation to realize," leading to excessive flexibility in local government implementation. Germany has legally mandated enterprises to undertake training obligations, embodying the "obligation to realize" into operable systems. This provides a path for refining Article 42 of China's Constitution, which states that "the state creates conditions for labor employment"—specific obligations such as "technological replacement compensation" and "digital skills training" need to be clarified in legislation.

Third, the innovation of relief mechanisms. New types of infringements such as algorithmic discrimination and opaque automated decision-making pose challenges to traditional relief models. Social rights theory requires relief mechanisms to shift from "ex post accountability" to "full-process prevention and control," such as the "algorithmic filing and review system" proposed by the ILO, which realizes preventive protection of employment equity by incorporating technological risks into ex ante regulation. This means that China needs to build a "technology-law" collaborative relief system under the constitutional framework, incorporating algorithmic transparency and the right to object into the connotation of rights.

5.3. The disenchantment of technological neutrality and the state's balancing obligations

Artificial intelligence is not a value-neutral tool; its algorithm design inherently

[15] Eide, Asbjørn, Catarina Krause, and Allan Rosas, eds. Economic, Social and Cultural Rights: A Textbook. 2nd ed. Dordrecht: Martinus Nijhoff, 2001.

balances efficiency and fairness. The current situation where most platform workers do not enjoy work-related injury insurance exposes the squeeze of technological logic on social rights—enterprises often evade protection responsibilities in the name of "algorithmic optimization." This requires the state to fulfill its "balancing obligation": on the one hand, respecting the role of technological innovation in promoting productivity; on the other hand, correcting the negative externalities of technology through institutional design.

Sweden's "flexicurity" model is instructive. Through its "enterprise transformation fund" system, it not only guarantees the application space for AI technology but also provides transformation support for those replaced, achieving a dynamic balance between efficiency and fairness.[16] This practice confirms Radbruch's view that "the ultimate goal of law is to make technological progress serve human dignity." Therefore, the state's positive obligations are not only to protect employment rights but also to guide technological ethics, ensuring that the development of artificial intelligence conforms to the constitutional value of "the all-round development of humans."

6. Conclusion

Focusing on the core question of "how the constitutional logic of the state's protection of the right to employment transforms in the era of artificial intelligence," this study draws the following conclusions through normative analysis, case studies, and empirical investigations:

Regarding the limitations of the traditional protection logic: The research confirms that the traditional model centered on "negative defense" can no longer cope with technological changes. The principled nature of the "state protection" clauses in constitutional texts, the disconnection between departmental laws and new forms of employment, and the risk of structural unemployment triggered by artificial intelligence have collectively highlighted the practical dilemma of adhering to the "non-intervention" logic.

Regarding the necessity of transforming the constitutional logic: At the theoretical level, both the failure of social contract theory in the technological era and the requirement of the theory of human dignity for "substantive labor rights" point to the transformation of state obligations from "passive defense" to "active construction." At the practical level, cases such as Germany's mandatory skills training and Zhejiang's digital employment services have verified the effectiveness of active intervention in mitigating technological shocks, providing empirical support for the transformation. Regarding the core direction of the transformation:

The social right attribute of the right to employment needs to be further strengthened, which is specifically reflected in the expansion of the subject of rights to include practitioners in new forms of employment, the refinement of obligation content into a full-chain protection of "prevention-adaptation-relief," and the adaptation of relief mechanisms to the needs of the algorithm era.[17] This transformation does not negate the value of traditional liberty rights but rather reaffirms the core constitutional value of "human dignity" in the context of the technological revolution.

7. Recommendations

To address the issues mentioned above, the following improvements are proposed:

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[16] Zhao, Xin, and Ziyang Zhan. 2023. "International Practices and Prospects of Transition Funds." Finance View 9: 65–76.

[17] Wang, Weicui. 2022. "Accelerating the Construction of a Rights-Protection System for Workers in New Forms of Employment." Chinese Workers' Movement, no. 1: 52.

7.1. Short-term measures

Increase financial support and establish a special fund for promoting employment in the age of artificial intelligence, with a focus on supporting vocational skills training, entrepreneurship incubation, and the development of new employment forms. For example, provide subsidies to enterprises that carry out AI skills training, and offer low-interest startup loans and tax relief policies to workers transitioning to entrepreneurship in the digital economy.

Establish an "industry-employment linkage assessment mechanism" to conduct employment impact assessments simultaneously when major technological projects are approved. Priority will be given to technological directions that can drive the growth of new jobs, such as human-machine collaboration and intelligent services.

Develop a regional and industry-specific dynamic employment monitoring and early warning mechanism. For manufacturing, service industries, and other sectors heavily impacted by artificial intelligence, formulate differentiated employment promotion plans to proactively address the risks of structural unemployment.

7.2. Medium-term measures

Expand the interpretation of "labor rights" in Article 42 of the Constitution through legislative interpretations by the Standing Committee of the National People's Congress or judicial interpretations, clarifying that it includes the state's positive obligations such as providing vocational skills training, reemployment assistance, and social security. Revise the Labor Law and Employment Promotion Law in a phased manner, adding new employment support clauses tailored to the context of artificial intelligence. Incorporate provisions such as "preventing unemployment risks caused by AI technology" and "eliminating algorithmic discrimination" into the scope of protection, aiming to enhance the adaptability and regulatory capacity of laws to emerging employment forms.

Accelerate the legislative process of the Artificial Intelligence Law to further specify platform enterprises' social security responsibilities toward flexible workers and regulatory rules for the application of algorithms in employment. Ensure that workers in new employment models enjoy the same labor rights and protections as those in traditional employment models.

7.3. Long-term measures

Promote reform in vocational education. Implement teaching models such as "enterprise mentorship" and "modern apprenticeship," encouraging technical backbones from enterprises and college teachers to co-teach, so as to cultivate interdisciplinary talents with both theoretical knowledge and practical skills. Broaden channels for "two-way integration" between vocational education and general education, establishing a "overpass" mechanism for credit recognition and academic qualification mutual recognition. Allow vocational college students to enter relevant majors in regular universities for further study through AI skill certification, and encourage regular university students to take vocational skills courses, thus promoting educational equity and talent mobility.

Optimize the mechanism for protecting employment rights and providing remedies. For new labor relations such as platform employment and the gig economy, clarify the criteria for identifying "quasi-employee" status, using indicators such as "dependence on work tasks" and "degree of algorithmic management" to determine the scope of rights protection. Ensure that groups such as food delivery riders and online car-hailing drivers enjoy basic labor rights, including minimum wage, social security contributions, and occupational safety protection. Implement an algorithm filing and review system, requiring enterprises to file algorithms used in human resources with the government and submit algorithm description documents.

Meanwhile, establish a review committee composed of labor supervision departments, trade unions, legal experts, and technical personnel to conduct regular assessments of algorithm fairness and transparency. Algorithms that fail the review shall be prohibited from use.

8. Limitations

This study is mainly based on the theoretical frameworks of constitutional law and labor law, conducting a relatively comprehensive analysis of the impact of artificial intelligence on the right to employment and the constitutional logic transformation of state protection of employment rights. However, it does not sufficiently incorporate cutting-edge theories in constitutional law, such as the theory of constitutional social rights and constitutional economic analysis, which somewhat limits the persuasiveness and depth of the theoretical argumentation. At the same time, there is insufficient reference to the technology substitution effect model in economics, the theory of social exclusion in sociology, and algorithmic ethical norms in ethics, resulting in a relatively singular dimension of theoretical analysis and a lack of an interdisciplinary explanatory framework. In terms of research samples, the focus is mainly on certain industries and specific groups, such as manufacturing, internet, and service sectors, with limited coverage of areas like agriculture and public services. The limitations in sample selection may cause the research findings to not fully reflect the actual situation of workers to a certain extent.

Although this study focuses on artificial intelligence and the protection of the right to employment, it does not delve deeply enough into the technical principles of AI, such as machine learning algorithms and data training mechanisms. As a result, when analyzing issues like algorithmic discrimination or the virtualization of labor relations, it is difficult to propose targeted solutions rooted in technical origins and ethical norms. In terms of policy recommendations, while the necessity of revising existing labor laws and regulations is raised, there is a lack of detailed elaboration on the specific legislative content and provisions requiring improvement. Moreover, insufficient attention is given to the actual differences between regions and industries; the proposed recommendations do not adequately distinguish between varying levels of economic development, industrial structure characteristics, or the degree to which different industries are impacted by artificial intelligence. For instance, applying the same set of employment promotion policies to both the traditional, manufacturing-intensive old industrial base in Northeast China and the digitally advanced Yangtze River Delta region may lack precision and relevance .[18]

Therefore, future research should further explore diversified paths and dynamic mechanisms for the protection of the right to employment in the age of artificial intelligence, to enhance the practical guidance value of research outcomes.

9. Future directions

Given the limitations present in current research, there remain many issues worthy of deeper investigation. On the theoretical level, prospective analysis can be conducted on relevant theories in constitutional law, such as the theory of constitutional social rights and constitutional economic analysis, to strengthen systematic interpretation of the normative implications of the "right to employment" in the Constitution. This includes its legal positioning as a "social right," the specific boundaries and standards for the state’s positive obligations, and advancing the normative transformation of the right to employment from a "liberty right" to a "benefit right."

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[18] Razavi, S. (2022). Making the right to social security a reality for all workers. The Indian Journal of Labour Economics, 65(2), 269-294.

Regarding interdisciplinary integration, methods drawing from economics, sociology, law, and other fields can be applied to thoroughly examine complex issues surrounding the protection of the right to employment in the context of artificial intelligence. For example, the impact of AI on the job market can be analyzed from an economic perspective; from a sociological perspective, one can study how changes in employment structure affect social equity; and from a legal perspective, explore how legal instruments can be used to safeguard the right to employment.[19]

In terms of sample coverage, areas such as agriculture and public services can be included in the scope of research, with a particular focus on the employment transition challenges faced by workers in central and western regions and rural areas, and analyze the actual effectiveness and existing problems of employment protection measures.

At the level of technological governance, future efforts can focus on the legal regulatory mechanisms addressing algorithmic discrimination, establishing an AI-driven human resource management system centered on "transparency, fairness, and accountability," and improving employees' rights to be informed about algorithmic decisions, to raise objections, and to access remedies.

In addition, future research should pay attention to frontier technologies and emerging forms of employment, strengthen the prediction and analysis of artificial intelligence developments, explore the potential impacts of fully automated production and the deep integration of humans and machines on the protection of the right to employment, and consider how constitutional safeguards for the right to employment might extend into virtual spaces to prevent new forms of tort risks such as algorithmic manipulation.

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