

Employment in Algeria through the Theory of "Algorithmic Management and the Future of Work"

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Abstract:

This article examines transformations in employment in Algeria in light of the growing reliance on algorithms and artificial intelligence systems in managerial and organizational practices, drawing on the theory of algorithmic management as a critical analytical framework. The study seeks to unpack the technical, social, and psychological dimensions accompanying the integration of algorithms into recruitment, task allocation, and performance evaluation, highlighting the ways in which they reconfigure power relations and mechanisms of control within workplaces. The article also addresses the specificity of the Algerian context amid the digital transformation of public administration and the national economy, focusing on the tension between promises of efficiency and transparency on the one hand, and the risks of exclusion, algorithmic bias, and the erosion of the human dimension of work on the other. It concludes that the future of work in Algeria depends on the ability of public policies to accompany digital transformation with ethical and regulatory frameworks that ensure social justice and protect workers' rights in the era of automated management.

Keywords :Algorithmic Management ‘Future of Work‘ Digital Transformation Employment in Algeria‘ Labor Governance.

Introduction:

The contemporary world of work is undergoing profound transformations driven by the accelerating pace of digitalization and the growing reliance on algorithms across various managerial and organizational functions, including recruitment, task allocation, and performance evaluation. Algorithms are no longer merely neutral technical tools; they have become organizational actors that actively reshape power

relations, modes of control, and criteria of efficiency within institutions. In this context, the theory of algorithmic management gains particular significance as a critical analytical framework that sheds light on the social, ethical, and psychological dimensions accompanying the integration of intelligent systems into the world of work.

From this perspective, the present article seeks to explore the issues surrounding algorithms and employment by linking them to the reality of work in Algeria, in light of the digital transformation affecting the national economy and public administration. The article aims to analyze this transformation in its technical, socio-psychological, and strategic dimensions, while highlighting the challenges and prospects shaping the relationship between the Algerian worker and the algorithm, within a global context where promises of efficiency intersect with risks of bias and marginalization.

1.A Theoretical Introduction to Algorithmic Management and the Future of Work:

In this context, it is pertinent to address the key ideas of the theory of algorithmic management and the future of workⁱ, as a conceptual entry point to the subject of this article:

- The Shift of Managerial Authority from Humans to Algorithms:

The article argues that algorithmic management represents a radical transformation in the nature of authority within organizations, whereby central managerial functions such as task allocation, performance evaluation, and reward systems are transferred from human managers to algorithmic systems based on data and automated analysis. This shift is not limited to enhancing efficiency; rather, it fundamentally restructures power relations and organizational dynamics within the workplace.

- Reducing Human Labor to Digital Metrics:

One of the most critical issues of algorithmic management lies in reducing workers to quantifiable numbers and performance indicators, leading to the marginalization of non-quantifiable dimensions such as creativity, empathy, informal leadership, and collaborative work. This "digital reductionism" creates a gap between the intrinsic value of human labor and what algorithmic systems are capable of recognizing.

- The Erosion of Employee Autonomy and Professional Agency:

The study emphasizes that algorithms diminish individual decision-making margins, as employees are increasingly required to follow system recommendations without understanding their internal logic. This condition weakens the sense of control over work and negatively affects job satisfaction and professional identity.

- Algorithms as Invisible Surveillance Tools:

Drawing on Michel Foucault's concept of the "panopticon," the article explains how algorithms impose new forms of continuous and invisible surveillance, whereby workers are constantly monitored without knowing when or how evaluation takes place. This mode of control reinforces self-discipline and deepens power asymmetries between management and employees.

- Reconfiguring Cooperation within Organizations:

Algorithmic management affects collective cooperation by prioritizing individual efficiency and speed over social relations and mutual trust. Algorithms are often designed to optimize task distribution rather than to foster social cohesion or psychological well-being within teams.

- Long-Term Threats to Innovation:

The article notes that excessive emphasis on standardization and predictability reduces the space available for experimentation and risk-taking, both of which are essential to innovation. Algorithmic systems tend to reinforce "safe," measurable behavior at the expense of novel ideas with uncertain outcomes.

- The Need for Accountability and Algorithmic Governance:

The author calls for adopting a "socio-technical" perspective on algorithmic management, one that emphasizes transparency, explainability, the right to contest decisions, and human participation in decision-making. Without clear accountability mechanisms, algorithms risk becoming instruments of unjust control.

- The Future of Work Is Not Merely Technical, but Ethical and Organizational:

The article concludes that the future of work under algorithmic management depends not solely on technological advancement, but on how technology is embedded within values of organizational justice, human dignity, and professional autonomy ensuring that algorithms support, rather than constrain, human labor.

The theory of algorithmic management offers a profound critical reading of contemporary transformations in work and stands as a significant interpretive framework for understanding the redistribution of power and mechanisms of control within modern organizations. Its strength lies in transcending reductive technical discourse by foregrounding the social and ethical dimensions accompanying the integration of algorithms into administrative management. It clearly warns against the risks of reducing human labor to digital indicators and the resulting erosion of professional autonomy and marginalization of non-measurable values. However,

despite its critical relevance, the theory may at times overemphasize the authoritarian character of algorithms without sufficiently highlighting their potential for participatory and fair deployment. Accordingly, the importance of this theory lies not in rejecting algorithmic management outright, but in calling for its rationalization and governance in a manner that balances organizational efficiency with the preservation of human dignity rendering it a suitable analytical framework for examining the future of work in transforming contexts, including the Algerian case.

2.The Reality of Employment in Algeria under Digital Transformation:

Based on the article's title and the core ideas of the theory, the analysis begins with an examination of the structure of the Algerian labor market, unemployment, informal work, and digitalization initiatives (e-government, digital platforms, and start-ups).

Employment in Algeria is experiencing accelerated transformations under digitalization, which has become a key factor in reshaping labor market structures and employment patterns. Accordingly, and in line with both the article's theme and the theoretical linkage between technological transformation and work organization, analyzing employment realities necessitates starting with the structure of the Algerian labor market, which remains characterized by a clear duality between a regulated formal sector and a widely prevalent informal sector. This structural feature directly affects job opportunities, levels of professional stability, and the extent to which digital mechanisms can be effectively leveraged.

Unemployment particularly among youth and university graduates remains one of the most prominent structural challenges of the Algerian labor market, as traditional employment policies have failed to absorb the growing influx of new job seekers. In this context, informal employment emerges as an alternative mechanism for mitigating unemployment, yet it remains limited in terms of social protection and job security. With the acceleration of digital transformation, the Algerian state has initiated several digitalization efforts, including the expansion of e-government, the development of digital platforms for employment and public services, and the promotion of start-ups. Despite the significance of these initiatives in modernizing employment and improving administrative performance, their effectiveness remains contingent upon the availability of digital infrastructure, the development of human competencies, and the establishment of an organizational culture capable of embracing digital transformation as a genuine lever for labor market reform.

3.The Technical Dimension of Employment Digitalization in Algeria:

By way of example, a scientific article entitled *The Reality and Future of Public Employment in Algeria under Digital Transformation* ²approaches this process as a

structural transformation affecting roles, skills, and recruitment mechanisms, and highlights the following points:

- The article affirms that digital transformation is no longer an option, but a necessity for improving the quality of public services and strengthening trust between the state and citizens.
- It diagnoses several key challenges, including bureaucratic rigidity, lack of flexibility, and excessive reliance on seniority rather than competence.
- It underscores the inadequacy of current recruitment mechanisms in meeting digital requirements and emerging job profiles.
- It stresses the need to integrate digital and soft skills into selection and promotion criteria.
- It highlights the importance of continuous learning and requalification of public employees to keep pace with automation and technology.
- It concludes that the success of digital transformation depends on legislative reform, updated employment policies, and the development of human capital.

This article constitutes a significant scholarly contribution to diagnosing the reality of public employment in Algeria and anticipating its future under digital transformation. It effectively highlights the structural nature of this transformation and the consequent need to reconsider roles, skills, and recruitment mechanisms. Moreover, it successfully links weak public sector performance to the persistence of traditional bureaucratic practices and offers a realistic critical reading of the shortcomings of recruitment and promotion systems. Its emphasis on human capital as the cornerstone of successful digital reform, alongside the call for comprehensive legislative and training reforms, stands out as a key strength of the study

4.The Digital Transformation of Employment in Algeria in Its Socio-Psychological Dimension:

As illustrated by an article entitled "Remote Work and Digitalization in Algeria: A Socio-Psychological Reading of the Challenges of Professional Integration"³, digital transformation and remote work in Algeria are not merely technical matters, but rather complex socio-psychological phenomena shaped by organizational culture and prevailing mental representations of work.

- The persistence of physical presence and direct supervision as dominant criteria is highlighted as a major obstacle to the adoption of flexible work arrangements.

-The study reveals psychological forms of resistance manifested in weak digital competence, fear of losing professional identity, and anxiety toward change.

-It confirms the existence of sharp digital divides linked to gender, age, and geographical location, leading to symbolic and psychological exclusion.

-It calls for an inclusive digital policy that takes into account digital justice, trust-building, and the reinforcement of psychological and training-based empowerment.

This article offers a profound analytical approach that goes beyond the technical dimension of digital transformation and remote work in Algeria by foregrounding its socio-psychological and organizational aspects. Its significance lies in exposing the centrality of traditional administrative culture and entrenched mental representations of work as hidden barriers to organizational innovation. It also clearly demonstrates the impact of digital divides and psychological resistance in obstructing fair professional integration. The article is particularly noteworthy for its assertion that the success of digitalization depends on comprehensive policies that foster trust and psychological and skills-based empowerment, rather than merely providing technological tools.

5.The Digital Transformation of Employment in Algeria in Its Strategic Dimension:

According to an article entitled Digital Transformation and Its Impact on Human Resources Strategies in Algeria: Challenges and Opportunities ⁴, the following points are emphasized:

-Digital transformation is presented as a fundamental strategic choice for modernizing the Algerian economy and enhancing institutional efficiency.

-The article shows that human resources management has become a central actor in leading digital transformation, moving beyond its traditional administrative role.

-Electronic human resources systems (E-HRM) contribute to automating recruitment, payroll, and performance evaluation, thereby increasing productivity and reducing costs.

-Algeria faces major challenges, notably weak digital infrastructure, skills gaps, and resistance to organizational change.

-Issues of information security and data protection emerge as legal and ethical barriers to digitalization.

-The article stresses that investment in digital skills, predictive analytics, and flexible work strengthens the future competitiveness of Algerian organizations.

This article clearly highlights the shift in the position of human resources management from a procedural function to a strategic actor driving digital transformation within Algerian institutions. Its strength lies in linking the adoption of E-HRM systems to improved organizational performance, while providing a realistic diagnosis of the structural and organizational challenges hindering this process. The article also effectively draws attention to the legal and ethical dimensions related to information security. Moreover, it offers a forward-looking perspective, emphasizing that investment in digital skills and flexible work constitutes a genuine lever for enhancing competitiveness and institutional sustainability.

6.The Digital Transformation of Employment in Algeria in Its Infrastructure-Related Dimension:

An article by researcher Roudi Al-Zahra and her colleague ⁵emphasizes that digital transformation has become an inevitable necessity for improving the performance of the information and communication technology sector in Algeria, particularly in light of global economic changes.

-The study adopts a descriptive-analytical approach to examine indicators of the postal and telecommunications sector during the period (2017–2023).

-The findings indicate that digital transformation has contributed to improving digital infrastructure efficiency and enhancing the competitiveness of the national economy.

-The analysis reveals notable growth in mobile phone and internet subscriptions, particularly fourth-generation (4G) technology.

-Conversely, Algeria continues to suffer from legislative delays and slow completion of digital infrastructure.

-The article recommends intensifying investment, updating the legal framework, and encouraging scientific research to support the digital economy.

This article provides an important scholarly contribution to analyzing the reality of digital transformation in Algeria, clearly demonstrating the relationship between the development of the ICT sector and the enhancement of national economic performance. The study's strength lies in its reliance on a descriptive-analytical methodology supported by relatively recent data (2017–2023), which lends credibility and realism to its findings. It also highlights tangible progress in mobile telecommunications and internet services, particularly 4G technology, as a positive

indicator of digitalization efforts. However, the diagnosis of legislative delays and slow infrastructure completion underscores persistent structural challenges. The proposed recommendations especially investment, legal modernization, and support for scientific research are well aligned with the requirements of an effective transition toward a competitive and sustainable digital economy.

7.The Relationship between the Algerian Worker and the Algorithm:

The relationship between the Algerian worker and the algorithm within the context of digital transformation can be described as an emerging one, oscillating between adaptation and caution. Algorithms have become a central component in organizing work within many institutions, particularly in the service, administrative, and telecommunications sectors, where they are used to allocate tasks, evaluate performance, and regulate work pace. On the one hand, algorithms offer Algerian workers opportunities to enhance efficiency, accelerate task completion, and reduce manual effort, while also introducing a degree of transparency and objectivity into certain organizational decisions. On the other hand, workers face challenges related to insufficient digital training, fears of losing professional autonomy, and anxiety over continuous monitoring imposed by algorithmic systems. Consequently, the success of this relationship remains contingent upon the qualification of human resources and the adaptation of organizational culture to the logic of digital work, in a manner that ensures a balanced integration between technical performance and the human dimension of labor

8.Skills and Competency Challenges in the Algerian Labor Market:

The Algerian labor market is facing growing challenges in terms of skills and competencies amid rapid economic and technological transformations. A clear mismatch can be observed between the outputs of the education and vocational training systems and the actual requirements of the labor market, particularly in digital and technical fields. Many institutions also suffer from a shortage of competencies capable of adapting to modern work environments that rely on technology and innovation. This situation is further compounded by a weak culture of lifelong learning, the limited availability of professional reskilling programs, and insufficient coordination between economic sectors and training institutions. These challenges contribute to rising unemployment rates especially among university graduates and hinder the integration of the workforce into high-quality jobs capable of supporting sustainable economic development.

In other words, and in a more concise form, the main challenges can be summarized as follows:

- The mismatch between academic training and real labor market requirements.
- Weak digital and technical skills among a significant proportion of job seekers.
- Limited continuous training and professional reskilling programs within institutions.
- Insufficient coordination between universities, training centers, and the economic sector.
- Slow adaptation of legislation and employment policies to modern economic transformations.
- The dominance of traditional jobs alongside limited opportunities for innovative and high-value employment.
- A weak culture of initiative and innovation compared to the demands of the knowledge economy.

9.Future Prospects of Employment in Algeria under Algorithmic Management:

The future prospects of employment in Algeria under algorithmic management point toward profound transformations affecting the nature of work and forms of professional organization. The adoption of algorithms in management, recruitment, and performance evaluation is expected to reshape job roles, with a decline in routine occupations and the emergence of new roles based on digital analysis, technical supervision, and data-driven decision-making. Algorithmic management is also anticipated to enhance efficiency, transparency, and service quality; however, its success remains closely tied to the readiness of organizational and legislative environments. In this context, the qualification of human resources and the development of digital skills become essential conditions for ensuring the fair and sustainable integration of Algerian workers while preserving the human dimension of labor and mitigating the risks of marginalization or job exclusion.

The key points outlining the future prospects of employment in relation to algorithms can be summarized as follows:

- A shift from routine tasks toward roles based on analysis, supervision, and decision-making.
- The emergence of new jobs related to data, artificial intelligence, and algorithmic systems management.
- Improved job performance efficiency and reduced time waste through intelligent automation.

- Enhanced transparency and objectivity in recruitment and performance evaluation within institutions.
- The growing importance of digital skills and continuous learning as conditions for professional stability.
- The reconfiguration of work patterns toward flexibility, remote work, and digital platforms.
- The necessity of developing legal frameworks to protect workers from excessive algorithmic control.
- Strengthening the role of vocational and university education in keeping pace with digital transformations.
- The potential reduction of qualitative unemployment if algorithmic transformation is effectively leveraged.
- Preserving the human and ethical dimensions of employment management in the future.

To further clarify that the challenges of algorithms and employment are global rather than exclusively Algerian, it is useful to briefly refer to international scholarly contributions that address this issue:

An article entitled Examining the Effect of Algorithmic Hiring, Perceived Fairness, and HR Tech Literacy on Recruitment Acceptance⁶ highlights the following points:

- The study examines the impact of algorithmic hiring, perceived fairness, and human resources technology literacy on applicants' acceptance of digital recruitment processes, focusing on how individuals interact with algorithm-based recruitment systems in the modern era.
- The researcher adopts a quantitative methodology, collecting data from 350 job seekers through structured questionnaires and analyzing it using multiple linear regression via SPSS to identify relationships among variables.
- The results indicate that all three variables have a statistically significant positive effect on recruitment acceptance meaning that algorithmic hiring, perceptions of fairness, and HR tech literacy enhance individuals' willingness to accept such systems.
- Among these factors, perceived fairness emerges as the most influential, underscoring the central role of transparency and justice in fostering acceptance of technological systems.

-The article emphasizes the importance of balancing technological innovation with fairness and transparency in the design of digital recruitment systems in order to build trust and improve recruitment outcomes in contemporary work environments.

Another important article, summarized briefly, entitled AI and Bias in Recruitment: Ensuring Fairness in Algorithmic Hiring⁷, further reinforces the global nature of these concerns

-Topic of the Study:

The article focuses on the use of artificial intelligence in recruitment processes and how it may generate hidden forms of bias (algorithmic bias) that affect the fairness of hiring decisions, despite the evident benefits in terms of speed and efficiency.

-Sources of Bias:

The authors demonstrate that bias may arise from historically biased datasets used to train models, from the model design itself, and from the selection of features employed in prediction processes.

-Impact of Bias:

The article emphasizes that such biases can exacerbate existing inequalities in employment opportunities, particularly for historically underrepresented groups.

-Regulatory Frameworks:

The article discusses legal frameworks such as the EU AI Act and the Equal Employment Opportunity guidelines in the United States, which impose requirements of transparency and accountability on automated hiring systems.

-Proposed Solutions:

The authors propose bias mitigation techniques, the use of diverse datasets, explainable artificial intelligence (XAI), periodic auditing processes, and the preservation of human oversight in recruitment in order to ensure fairness.

From another perspective, and for further depth, the most salient points of the Brookings article entitled Challenges for Mitigating Bias in Algorithmic Hiring⁸ can be summarized in a concise and structured manner as follows:

-Background and Importance of the Topic:

Hiring is among the most economically and socially consequential organizational processes. Many employers rely on algorithmic tools to accelerate the screening phase,

during which applicants are evaluated and filtered prior to interviews or final selection. These tools include résumé screening, game-based assessments, and behavioral data analytics.

-Expectations versus Reality:

Algorithms are often perceived as "objective" because they rely on data and past experiences. In practice, however, they frequently reproduce and sometimes intensify human biases embedded in training data, rather than eliminating them.

-Legal Challenges:

U.S. law (Title VII of the Civil Rights Act) prohibits both direct discrimination (disparate treatment) and indirect discrimination (disparate impact). Algorithm developers attempt to avoid direct discrimination by removing sensitive variables (such as gender or race), yet algorithms may still generate unequal outcomes across demographic groups.

-Technical "Debiasing" Methods:

Some companies rebuild models after detecting discriminatory effects for instance, by removing words associated with particular groups (e.g., "lacrosse") to reduce bias. However, such interventions may reduce predictive accuracy or alter the behavioral relationships upon which the models rely.

-Evaluation and Legal Accountability Issues:

Legal defenses against disparate impact claims sometimes rely on demonstrating high predictive accuracy. This approach may conceal performance disparities across groups for example, high accuracy for one group and poor performance for another.

-The Need for Greater Policy Attention:

The article concludes that while algorithmic tools hold promise and opportunity, they raise critical policy questions concerning transparency, fair performance, and legal compliance. These challenges require further research and regulatory oversight to ensure fairness in hiring.

One of the most notable contributions in this field is the article "Algorithmic Bias in Hiring: Fact or Myth?"⁹ published by Purdue Business – Daniels Insights, which reports on empirical field research. Its main findings can be summarized as follows:

-The General Context of AI-Supported Hiring:

Public debate questions whether the use of artificial intelligence in hiring such as résumé screening, candidate sourcing, and interview analysis leads to unfair algorithmic bias or whether this concern is exaggerated.

-What Is Algorithmic Bias?

Concerns stem from the idea that algorithms may favor candidates who resemble current employees in demographic characteristics, or systematically disadvantage certain groups in fair competition.

-Current Scientific Evidence:

A review of the academic literature indicates that much public discourse lacks a deep understanding of the technology, and that there is no widespread empirical evidence proving algorithmic bias to be a systematic or pervasive problem although its occurrence remains possible.

-Why Might Bias Occur?

AI systems are typically trained on data from previous employees and applicants. If historical data favor specific characteristics (such as particular educational institutions or professional backgrounds), algorithms may replicate these patterns in hiring outcomes.

-Is It a Myth?

Some outcome disparities may reflect genuine differences in skills across groups rather than algorithmic bias per se.

-Findings from Industrial and Applied Research:

Algorithms generally reflect existing group differences present in training data rather than amplifying them. Some recent studies even suggest that AI can measure additional skills where group differences are smaller, potentially improving fairness and job performance prediction.

-Recommendations for Organizations:

Examine what the algorithm measures and ensure that it is directly job-related (a key legal requirement).

Monitor outcomes to identify the sources of observed disparities.

Improve outreach to attract diverse candidates with comparable qualifications.

Communicate transparently with applicants and stakeholders to reduce skepticism toward algorithmic systems.

Conclusion:

This article concludes that algorithmic management is no longer a purely technical matter, but rather an organizational and ethical issue that touches the core of human labor and the future of employment both in the Algerian context and globally. The analysis demonstrates that digital transformation in Algeria offers genuine opportunities to improve performance, enhance transparency, and modernize recruitment and management practices. At the same time, it raises structural challenges related to skills gaps, infrastructure fragility, and cultural and psychological resistance.

Furthermore, the adoption of algorithms in recruitment and performance evaluation despite its apparent speed and objectivity may generate new forms of control, surveillance, and marginalization in the absence of effective governance and human oversight. Consequently, the future of employment under algorithmic management remains contingent upon the ability of stakeholders to rationalize this transformation through fair legal frameworks, comprehensive training strategies, and the institutionalization of transparency, justice, and respect for human dignity ensuring that algorithms function as tools that support work rather than replace the human being.

References:

Roudi, Al-Zahra, and Ben Oudina Bouhafs. "The Reality of Information and Communication Technology in Algeria under Digital Transformation (2017–2023)." *Idafat Iqtisadiyya Journal* 9, no. 2 (2025): 422–439.

Fninesh, Wassim. "The Future of Public Employment under Digital Transformation in Algeria: Current Issues and Future Challenges." *Al-Saoura Journal of Human and Social Studies* 11, no. 2 (2025): 914–934.

Konjen, Hiram. *Algorithmic Management and the Future of Human Work: Implications for Autonomy, Collaboration, and Innovation*. Preprint, arXiv, 2025.

Senhadji, Djamel, and Hilmi Drideche. "Remote Work and Digitalization in Algeria: A Socio-Psychological Reading of the Challenges of Professional Integration." *Review El Mourchid* 15, no. 1 (December 2025): 226–240.

Zakaria, Hamza, and Hassiba Almi. "Digital Transformation and Its Impact on Human Resources Strategies in Algeria: Challenges and Opportunities." *Journal of Contemporary Business and Economic Studies* 8, no. 1 (2025): 156–174.

Ilham, Rachmad. "Examining the Effect of Algorithmic Hiring, Perceived Fairness, and HR Tech Literacy on Recruitment Acceptance." *International Journal of Business, Law, and Education* 6, no. 1 (2025): 834–843.

Ahuchogu, Magnus Chukwuebuka, Gabriella Folashade Akenn Musa, Eric Howard, and Kashmira Mathur. "AI and Bias in Recruitment: Ensuring Fairness in Algorithmic Hiring." *Journal of Informatics Education and Research* 5, no. 3 (July 18, 2025).

Raghavan, Manish, and Solon Barocas. "Challenges for Mitigating Bias in Algorithmic Hiring." Brookings Institution, December 6, 2019.

Campion, Michael A. "Algorithmic Bias in Hiring: Fact or Myth?" *Purdue Business – Daniels Insights*, July 3, 2025.

¹ Konjen, Hiram. *Algorithmic Management and the Future of Human Work: Implications for Autonomy, Collaboration, and Innovation*. Preprint, arXiv, 2025.

² Fninesh, Wassim. "The Future of Public Employment in Light of the Shift toward Digital Transformation in Algeria: Current Issues and Future Challenges." *Al-Saoura Journal of Human and Social Studies* 11, no. 2 (2025): 914–934.

³ Senhadji, Djamel, and Hilmi Drideche. "Remote Work and Digitalization in Algeria: A Socio-Psychological Reading of the Challenges of Professional Integration." *Review El Mourchid* 15, no. 1 (December 2025): 226–240.

⁴ Zakaria, Hamza, and Hassiba Almi. "Digital Transformation and Its Impact on Human Resources Strategies in Algeria: Challenges and Opportunities." *Journal of Contemporary Business and Economic Studies* 8, no. 1 (2025): 156–174.

⁵ Roudi, Al-Zahra, and Ben Oudina Bouhafs. "The Reality of Information and Communication Technology in Algeria under Digital Transformation (2017–2023)." *Idafat Iqtisadiyya Journal* 9, no. 2 (2025): 422–439.

⁶ Ilham, Rachmad. "Examining the Effect of Algorithmic Hiring, Perceived Fairness, and HR Tech Literacy on Recruitment Acceptance." *International Journal of Business, Law, and Education* 6, no. 1 (2025): 834–843.

⁷ Ahuchogu, Magnus Chukwuebuka, Gabriella Folashade Akenn Musa, Eric Howard, and Kashmira Mathur. "AI and Bias in Recruitment: Ensuring Fairness in Algorithmic Hiring." *Journal of Informatics Education and Research* 5, no. 3 (July 18, 2025).

⁸ Raghavan, Manish, and Solon Barocas. "Challenges for Mitigating Bias in Algorithmic Hiring." Brookings Institution, December 6, 2019.

⁹ Campion, Michael A. "Algorithmic Bias in Hiring: Fact or Myth?" *Purdue Business – Daniels Insights*, July 3, 2025.