

AI and Human Interaction: The Changing Nature of Work Relationships

الذكاء الاصطناعي والتفاعل البشري: الواقع الجديد لعلاقات العمل

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Abstract:

The rapid economic growth and the increasing need for institutions to adopt smart machines to keep up with ongoing technological transformations will have direct consequences on the world of employment and work relationships. This is due to the thousands of positions that will be eliminated as a result of task automation across all sectors. This technological development will also impact work relationships at all stages (its inception, implementation, and termination). In the absence of specific legislation for artificial intelligence during this transitional phase, it is initially possible to apply the current labour law, provided it is adapted to these transformations and a charter is established to commit to ethical standards, ensuring equal access to this technology for all, including the less privileged.

Keywords: Artificial Intelligence, Work Relationship, Task Automation, Smart Machine, Technological Transformations, Adaptation of Labour Legislation, Ethics Charter, Future Professions.

ملخص:

يشهد سوق العمل تغيرات جذرية بفعل التحول الرقمي والاعتماد المتزايد على تقنيات الذكاء الاصطناعي، حيث تؤدي الأتمتة إلى اختفاء العديد من الوظائف التقليدية، في مقابل ظهور وظائف جديدة تتطلب كفاءات رقمية ومهارات متقدمة. ولا يقتصر أثر الابتكار التكنولوجي على تقليص اليد العاملة في بعض المجالات، بل يسهم في خلق فرص عمل في ميادين ناشئة مثل تطوير البرمجيات، تحليل البيانات، إدارة الأنظمة الذكية، وأمن الشبكات. وتفرض هذه التغيرات ضرورة تدخل المشرع لتحديث الأطر القانونية والتنظيمية، وإعادة توجيه سياسات التكوين والتأهيل المهني بما يتماشى مع طبيعة الاقتصاد الرقمي، حفاظا على مبدأ تكافؤ الفرص وضمانا لاستمرار الاستفادة من التغطية الاجتماعية.

الكلمات المفتاحية: الذكاء الاصطناعي، علاقات العمل، أتمتة المهام، الآلات الذكية، التحولات التكنولوجية، مهن المستقبل.

Introduction:

Predicting the impact of artificial intelligence on the world of work and labour relations in the future is currently one of the most important topics being discussed. Some believe that major disruptions will occur in the job market, where smart machines will replace humans, leading to their exclusion and marginalization, or at least change traditional working conditions, especially when the smart machine becomes our coworker or even our supervisor. Some scientists, notably Stephen Hawking, have expressed concerns about artificial intelligence, considering it a threat to jobs, particularly those of the middle class. They believe that only individuals capable of innovation and creativity will remain relevant. On the other hand, there are those who believe that task automation will actually create new jobs by providing entrepreneurs with new tools and leading to the emergence of entirely new job sectors—ones that we cannot even imagine today. Millions of jobs lost in the past were replaced by new ones, as explained by economist Josef Schumpeter's theory of creative destruction.¹ This theory could be applied to artificial intelligence as well: every innovation generates a new job. Meanwhile, others take a more reassuring view, arguing that artificial intelligence is meant to complement human intelligence and assist in performing tasks². It is closely tied to scientific research and is not intended to replace human intelligence. Regardless of the differing opinions, it is certain that this technological revolution will affect work and its conditions. Some tasks will be eliminated, others will be modified, and new jobs will be created.

Attempting to predict the general effects of artificial intelligence on the world of work is not, in itself, a sufficient guarantee for the stability of labour relations. Concerns always remain due to the rapid development of these new variables and the constantly changing environment. This calls for the continuous refinement of these new concepts in order to properly address and manage the problem in the most appropriate way. Such refinement begins with understanding our surroundings and enhancing our ability to anticipate changes in the workplace through skill development and ongoing planning.

The development the world is witnessing due to artificial intelligence is considered a fourth industrial revolution that will transform most jobs by automating a large number of tasks. This has caused significant concern in the world of work and among workers. History has shown us that every major change the world has undergone has never been without consequences — it has often led to major disruption. The process of reestablishing order, typically undertaken by governments, tends to be harsh and often comes at the expense of the most vulnerable and disadvantaged members of society.

The worker faces the challenge of artificial intelligence at all stages of the employment relationship—from the day of applying for a job in front of a recruitment algorithm, to the job interview, which may now take place in front of a smart machine instead of a human being. This challenge continues during the execution of the employment relationship, which requires preparation for this transitional phase by identifying the main risks that employment relations will encounter and determining the competencies and qualifications that must be developed in order to work alongside the machine in the initial stage.

As smart machines enter all sectors, it is essential to prepare workers for this phase and take responsibility for their training so they can understand their future roles, which will differ

depending on whether the machine is assisting or replacing humans. The matter will depend on the degree of autonomy granted to artificial intelligence, which will be defined according to the employment policies adopted by the state in line with its social and economic conditions. Then comes preparation for a more complex future phase, where the priority will be to develop creative abilities and professional competencies for individuals currently employed, and to prepare those who will join the workforce in the future. – Section one.

The issue of evaluating artificial intelligence based on currently available data remains a matter of speculation that does not yet reach objective foundations on which we can base our judgments. It is too early to determine whether artificial intelligence is a blessing or a curse for the world of work. Its most defining characteristic is unpredictability. AI might turn out to be a new problem that adds complexity to the world of work, or it could be something positive that contributes to improving human life, allowing people to focus on their personal matters and live more comfortably—especially when AIs take over human jobs and lead to the termination of employment relationships. - Section two.

The labour law rules, as they are currently applied, are designed to be implemented for humans, not machines. As Professor Laurent Granet, the logistics manager of the Volkswagen Group in France, believes, these rules should undergo a radical change to be applicable to machines.³

However, this does not prevent framing the labor law rules, in their current form, for this transitional phase to protect the worker who faces the challenge of the smart machine at all stages of the employment relationship, from the job application process to its implementation, especially when the smart machine leads to the elimination of the worker's position and the termination of the relationship.

What is the impact of artificial intelligence on labour relations, and does the current labour law provide sufficient guarantees in anticipation of the smart machine replacing the worker within the employing organisation?

The introduction of AIs into the employing organization will inevitably impact the employment relationship from its inception to its conclusion—both at the recruitment stage and during the performance of the employment relationship—particularly with regard to the employer's obligation to support the worker throughout this transitional phase by training them to adapt to the new conditions required for carrying out the employment relationship.

Section One: The Continuation of the Employment Relationship in the Age of Artificial Intelligence

1. Establishing the Employment Relationship

No one can deny today that robots and artificial intelligence algorithms compete with human activity.⁴ Technological transformations have directly affected the formation of the employment relationship, as AI now participates in the process of selecting and recruiting workers in organisations, thereby competing with human resources specialists in performing their tasks.

I. Applying for a Job

Technological development has diversified the ways of obtaining employment, allowing job seekers to easily apply through online platforms such as Emploitic, where they complete a résumé form and await a response from the organisation that posted the vacancy.⁵ However, as intelligent machines enter the employment organisations in the future, there will be a direct impact on the recruitment phase: from the moment of application submission through the job interview, the candidate faces a recruitment algorithm rather than a human recruiter.

In the initial stage, the candidate is shortlisted for a specific position by passing their résumé through the recruitment algorithm filter to verify eligibility for preliminary qualification. The algorithm determines the required criteria, based on qualifications, experience, etc., and eliminates unsuitable applications. Consequently, the résumé does not face a human reviewer but an AI that naturally favours the most polished and well-organised file.

Assigning this task to a recruitment algorithm may infringe upon the fundamental rights of job applicants. A study conducted by the Massachusetts Institute of Technology revealed the data-collection methods in use and concluded that the smart application was racist and biased. Therefore, the recruitment algorithm must avoid anything that could lead to discrimination among candidates during the hiring phase, whether based on age, gender, or social status, in accordance with Article 17 of Law 90-11.⁶

Workers must be protected during this phase from any discrimination in obtaining a position that is not based on their qualifications and merits,⁷ and no discrimination, exclusion, or favouritism is permitted if it would undermine the implementation of equal opportunity or equal treatment in employment or occupation, per ILO Convention No. 111.⁸

This calls for adapting current labour legislation to safeguard workers with mid-level competencies from all forms of discrimination during recruitment by committing to training programs that ensure equal opportunities before applying for a position.

Additionally, the recruitment algorithm can, to avoid any discrimination among job applicants during this stage, rely on two fundamental principles. These principles can be included among the new guarantees and fundamental freedoms of the digital age—also referred to as “system rights”—aimed at regulating global governance of the digital world and ensuring ethical artificial intelligence in the service of humanity, as a preventive measure. They are:

- Principle of Integrity:

The algorithm⁹ must exhibit integrity when processing personal data, treating candidates fairly during the review of job applications and considering their interests not only as consumers but also as citizens. It should respect all matters concerning the broader collective interests of society as a whole and perform its tasks in good faith, without being guided by objectives that diverge from users’ interests.

- Principle of Vigilance:

The development of intelligent systems often leads to a decline in human vigilance and its erosion due to overreliance on AI, which is perceived as infallible as it advances. This calls for the establishment of a principle of collective vigilance, to be applied by all links in the algorithmic chain—from designers and algorithm trainers to institutions and end-users—to ensure the precise and continual use of the algorithmic tool. This principle directly addresses the demands imposed by these technological tools, given their inherent unpredictability and the multiple components involved in forming the algorithmic chain.¹⁰

In addition to the need to strengthen the ethical framework by establishing an ethics committee within employing institutions—especially given the global trend that considers the current time unsuitable for enacting a strict law on artificial intelligence—it is deemed sufficient to adhere to rules that ensure respect for ethics and fundamental freedoms, that is, to settle for what is known as soft law, by relying on existing legislation and adapting it to the new challenges.¹¹

The French company Riminder – a creative new start-up – has developed an intelligent application that allows companies to identify skilled job seekers. It is an app that tracks and analyses the professional path of the job seeker, enabling companies to sort through the massive number of applications and identify candidates whose skills match the company's requirements, all in a very short time and at minimal cost.¹²

A legal debate was raised before the French courts regarding whether these new recruitment technologies constitute a change in working conditions, particularly when examining the use by companies of the Watson application developed by IBM¹³ during the recruitment stage. The French Court of Cassation ruled that introducing such a program to handle the recruitment process helps ease the burden on the workers responsible for it and does not constitute a change in working conditions or affect health and safety in the workplace. The implementation of this program does not impact working conditions or the redistribution of workloads—it simply facilitates the performance of the task. The function of this intelligent application is to sort emails based on keywords and forward them to the relevant department, prioritising them according to urgency when some files require swift processing.¹⁴

Despite the services that technology has provided in the field of recruitment for companies and job seekers, AI systems operate by searching within databases that have been pre-prepared. They are programmed based on the company's prior data, which leads to a closed job market due to monotony and rigidity. Consequently, the AI, in this case, needs to develop itself and find solutions beyond what it was initially programmed for—a major challenge for artificial intelligence.

This also raises the issue of the right to use personal data, which has become the property of large corporations through the creation of massive databases. In this regard, the Algerian legislator has strengthened its legal framework to protect individuals in the processing of personal data and to uphold the protection of private life, public freedoms, and human dignity under Law No. 18-07.¹⁵

II. Job Interview

Once the application is accepted, the candidate proceeds to the next stage, which is the job interview. This may be conducted via phone or other communication tools such as Skype. At this stage, the role of AI is to identify the most suitable candidate for the proposed position from among the submitted applications. The machine asks appropriate questions to the job seeker, similar to those a human interviewer would ask—questions related to obtained qualifications, experience, and the candidate's motivation and readiness to work in the proposed position.

At a more advanced stage, the AI may be able to detect the emotions of the person speaking with it, such as disappointment or the level of enthusiasm the applicant has for the job. Some companies have already adopted this method, including L'Oréal, PepsiCo, and Ikea. L'Oréal and Ikea, for example, tested the virtual HR assistant Vera,¹⁶ whose task was to filter out the most suitable applicants for the company's needs. However, after several weeks, Vera failed during the trial period and was abandoned by these companies.

They are now experimenting with other intelligent machines like Mya Chatbot¹⁷ to accelerate the recruitment process and reduce costs. The tasks performed by the intelligent machine in seconds take up about 60% of the time typically spent by HR specialists, especially for companies like L'Oréal, which receives around two million job applications per year.

Other companies, such as Google, have also abandoned automated résumé screening after testing it, which shows that algorithms still have limited capabilities and cannot replace direct human interaction.¹⁸

As for the final interview where the decision is made, it is the human being's responsibility, not AI. Some regulations prohibit AI from making decisions independently and without human intervention, especially when those decisions have significant consequences for individuals.¹⁹

2. Executing the Employment Relationship in the Era of AI

The current labour law cannot be applied to AI, but with adjustments, it can become the tool that helps keep pace with the transformations caused by the presence of AI within the workplace. This would help navigate this transitional phase in a flexible way with minimal losses. Training is considered the biggest challenge for employers, who view it as an additional burden, as well as for employees who must accept the idea of being trained to develop their skills instead of withdrawing.

I. Training Workers: A Major Challenge

Following the discussion on the training phase (A), we will cover: the idea of continuous adaptation (B), the trial phase (C), AI specialist training (D), human-AI collaboration (E), enhancing human creativity and innovation (F), and finally, the expected management strategy (G).

A. The Training Phase

Employers must train workers to help them understand their role alongside AI, whether it's simply a supportive role or one of dependence. This shift changes how we define tasks and

distribute responsibilities between humans and AI. Undoubtedly, AI will significantly marginalise individuals who lack advanced skills, raising an urgent question: how can today's workers adapt to tomorrow's jobs? The only way forward is to reform the education system and training sectors to match the evolving demands, and to decide whether we aim to preserve the workforce or the very concept of work as a human and social value.²⁰

Employers need to invest in training their workers to meet these challenges, and this should happen through a transitional phase.²¹ It requires rethinking both the content and the approach to training by creating new methods tailored to AI. Change should also happen on a structural level—by enhancing creativity and automating tasks that can be handled by AI. In other words, wherever possible, AI should replace the human mind in performing tasks.²²

It's essential to place significant importance on training. The current methods—whether vocational training or on-the-job training during probation—are not well-suited to meet the demands of this new phase. In its current form, training is simply not enough to foster creativity, build diverse skill sets, or support the kind of work that now requires multi-dimensional capabilities.²³

One of the key challenges facing all parties in ensuring effective and ongoing training is the urgent need to adopt new learning and development methods that respond to the complex demands of the evolving workplace. These demands increasingly revolve around professional qualifications, such as creativity and general cognitive skills.

Any proposed training model should go through an initial testing phase—what's commonly known as a Proof of Concept—to assess how feasible it is to implement in real-world conditions with speed and precision.

In addition, clear testing protocols should be developed for AI systems.²⁴ A major concern is that not all workers are equally equipped to adapt to new conditions or build a completely new career path. These early trials will help create targeted policies for affected employees, especially those who may struggle the most with the transition, ensuring the burden of retraining doesn't fall solely on the worker.

To help workers adapt to new roles, support measures could be provided either free of charge²⁵ or partially financed by the workers themselves through a new concept called the Technological Transition Training Loan. This system would give workers the right to receive such a loan while maintaining the freedom to choose whether to stay in the race—by retraining to keep up with technological progress—or to completely shift their field of work.

B. Continuous Adaptation

This concerns the legal mechanisms currently available to ensure continuous training for workers so they can adapt to new realities. The success of AI integration largely depends on the worker's ability to master technology and take on tasks that require advanced skills and qualifications, creating added value that AI alone cannot provide.

The most effective legal tool to begin aligning businesses with these changes is strategic workforce and skills planning, which anticipates future needs in terms of human resources and roles.²⁶

B. 1. Strategic Human Resource Planning:

This refers to anticipatory human resource management aligned with the strategic choices of organisations. In the midst of rapid technological advancement and increasing market competition, HR management emerges as a vital pillar for helping companies integrate into a modern environment driven by quality, knowledge, and human capital.²⁷ This approach involves identifying the company's future workforce needs. Additionally, a national digital platform for human resources could be developed to guide organisations in identifying and addressing sector-specific talent demands in the age of AI.

B. 2. Predictive Management of Jobs and Skills

This body conducts a preliminary study of expected developments in jobs, professions, skills, and qualifications associated with foreseeable economic, demographic, and technological shifts. This necessitates strengthening regulations that require employers to take action on the predictive management of jobs and skills, legally obligating them to align and develop skills according to job positions. These measures should take into account the evolution of the labour market and emerging technologies.

C. The Trial Phase

The transitional phase should begin with a trial period to address challenges for both new employees, who are subject to a probationary period that legally cannot exceed six months, but which can be extended to twelve months for high-skilled job positions. The trial period may also be determined through collective negotiation.²⁸ During this period, employees are entitled to the same rights as those in similar positions and are subject to the same duties, and this period is taken into account when calculating seniority.²⁹ This new phase requires the establishment of specialised institutions to carry out the trial phase, consisting primarily of researchers in the field and representatives from various sectors.³⁰ Employees currently in their positions should benefit from special measures to support them during this transitional phase, which can be achieved through the implementation of assistance measures to help the employees adapt to the new situation. This can be entrusted to vocational training or apprenticeship programs.

D. AI Specialist Training

Another challenge lies in training as many specialists as possible in the field of artificial intelligence, as the current number is far from sufficient and is likely to decrease according to current data. Training must be at a very high level, achieved by establishing higher schools in digital technology³¹ and creating so-called start-ups. Algeria is lagging behind in this field, as the world saw the birth of nearly 1500 start-ups between 2012 and 2017.

Efforts should also be made to attract specialists in artificial intelligence by eliminating the phenomenon of Algerian brain drain abroad, so that the country can play a role in this technological revolution, which has become tied to national sovereignty.³² Algeria has the potential for this, as 60 Algerian researchers in artificial intelligence have published their works in the prestigious global journal Springer.³³

D. 1. Establishing Specialized Laboratories in the Field of Labor Market Transformations

In addition to the state-owned research laboratories currently in Algeria, specialised in artificial intelligence research and affiliated with Algerian universities,³⁴ the creation of independent laboratories to study transformations in the world of work is an essential necessity in order to ensure continuous and regular forecasting in the field of artificial intelligence. This must align with the country's policies through sustainable strategic planning to unify exploratory studies and initiatives by establishing a body of researchers to facilitate this transitional phase and determine the public policy for employment in the age of artificial intelligence.³⁵ Specialised institutes in Algeria, such as the National Institute for Strategic Studies, can also facilitate this process.

D. 2. Establishing Centres for Future Professions

Algeria must prepare itself for future professions in the era of artificial intelligence in response to the requirements of social and economic development.³⁶ These centres should encompass all sectors and operate through a triad consisting of the state, unions, and local communities, in addition to university experts and institutions specialised in this field. The relationship between experts and specialists is essential for the smooth functioning of the laboratory, along with international experts in the field, to connect with the outside world.

The transformations taking place in the world of work in the era of artificial intelligence have prompted some countries, including Germany, to take the lead by launching a digital platform. This platform is a website that provides space for all stakeholders — economic operators, political, economic, and social decision-makers, as well as experts and citizens — to engage in broad dialogue. It serves as a space for discussion aimed at finding solutions through proposals put forward by politicians, economists, and sociologists.³⁷

E. Human-AI Collaboration

The complementary role of the worker causes them to lose their autonomy and places them in a subordinate relationship with the AI, a new concept whose foundations and regulations have yet to be clarified, instead of the traditional subordination to the employer in the classical employment relationship. This will have an impact in terms of the control exercised over the worker by the AI.

E. 1. The Shortcomings of Legislation in Adapting to Working Conditions

The issue of achieving harmony between humans and AI raises the problem of regulating working conditions in the era of artificial intelligence. Many workers and business owners consider that the current rules governing these conditions are overly rigid and incompatible with new working methods. These regulations fail to take into account the new and specific risks, such as the loss of initiative when human work is reduced to merely obeying and executing the commands of intelligent machines under the pretence of improving working conditions and cooperation. This may lead to an increase in routine tasks, a decline in creativity and critical thinking, and a potential rise in what is known as 'functional stupidity'.³⁸

While automation undoubtedly facilitates human life, it does not mean that there are no long-term risks. Moreover, the AI's exemption from the regulations governing working hours can lead to an increased workload for the person supervising it, becoming a new source of suffering in the workplace. Added to this is the isolation experienced by workers, as unconditional obedience to the AI's commands, without any possibility of discussion, constitutes yet another form of workplace distress.

E. 2. The Impact of Employment Policy on Defining the Role of Humans

The role that the worker will play upon the introduction of AI into the workplace depends on the policies adopted by the state to regulate artificial intelligence in the world of work. The worker may take on a complementary role, working alongside the AI, or, at a more advanced stage, may become unemployed and entirely dependent on it. The change will be radical, but it is not about replacing human capabilities—it is about complementing them.³⁹

Keeping pace with these technological transformations not only requires training the workforce for the new positions that will be created, but also defining the intended and expected goals of this integration between humans and intelligent machines. These goals are divided into general objectives and others related to work methods. The first set of goals should be defined in relation to the structure of the labour market, by avoiding the concentration and monopolisation of the job market by parties that own the technology. Artificial intelligence should not contribute to reinforcing inequality or infringing upon individual rights; rather, it should promote human and social development.⁴⁰

The second set of goals concerns the method of working alongside intelligent machines and understanding what is meant by this integration, which may take various forms, not all of them desirable. This calls for identifying a form of integration that is inclusive and accommodates everyone without exclusion. This is referred to as "complementarity of capacitance," meaning it is necessary to develop a model of integration that includes everyone, one that is widely negotiated and involves workers as well.⁴¹

F. Enhancing Human Creativity and Innovation

This priority of developing human creative capacities requires a complete reconsideration of the entire educational system and teaching methods through forward-looking planning that prioritises creativity and innovative pedagogy.⁴² Curricula must be reformed to encourage creativity and innovation, giving precedence to programs aimed at teaching creativity.⁴³

The major companies that dominate artificial intelligence did not reach their current positions because of the size of their data sets, but rather due to their creative capabilities. Facebook created a new kind of social relationship through a virtual world via social media platforms, Google chose a global outreach strategy, Apple offered the best vision for user experience, and Amazon transformed the traditional retail and customer service model through the internet.⁴⁴

G. The Expected Management Strategy

At the institutional level, it is essential to anticipate training plans for future managers and directors, aiming for a more flexible professional activity. The manager becomes more of a coordinator than a supervisor or controller of work. They should have the ability to energise the team, manage communication channels,⁴⁵ achieve consensus, and build alignment within the group.⁴⁶ Loyalty will no longer be towards the employer in the traditional sense but will shift towards those with high technical and professional expertise, who must be able to foster a working relationship based on supervision and encouragement rather than control,⁴⁷ and establish and maintain personal relationships through virtual means and channels.

II. The Impact of AI on Other Obligations of the Employer.

The main legal issues raised by artificial intelligence are as follows:

A. Legal rules that do not apply to intelligent machines

Many provisions of labour law cannot be applied to AI, such as those related to the legal working hours⁴⁸ and rest periods. These will undergo a radical change, as machines do not get tired and can continue working 24 hours a day, seven days a week. They also do not claim wages for their work, paid vacation, or respect for privacy. Furthermore, they do not resort to strikes to demand additional rights and benefits, and the employer is not required to provide health coverage.

B. Rules whose application raises some issues

The application of labor law rules related to the employer's obligations toward the employee will not be easy in the era of artificial intelligence, especially regarding the employee's basic rights, such as protecting private life (B. 1), ensuring safety in the workplace (B. 2), and other rights such as obtaining wages, which raises issues related to the need to find new sources of funding for social insurance (B. 3).

B. 1. Protection of Private Life

In light of the massive digital transformation within organisations, it is essential to preserve the fundamental rights of workers. The Algerian constitution has enshrined the protection of individuals' right to privacy,⁴⁹ and this is also affirmed by the Penal Code,⁵⁰ which states that individuals' rights and freedoms, both personal and collective, cannot be infringed upon in the digital environment unless justified by the nature of the activity to be performed. However, can these legal provisions continue to protect the rights and freedoms of workers once AI enters the organisation?

Today, managers can rely on artificial intelligence to implement continuous surveillance of workers. For example, they can access workers' professional emails to track mistakes before they escalate and lead to reduced productivity. By reviewing their emails, it is also possible to detect their feelings and emotions through the words they use or the phrases they

repeat. The AI can even monitor the number of hours spent on social media sites like Facebook or excessive use of chat platforms.

Companies that use this technology typically justify it by claiming their goal is to encourage workers to focus on their tasks and avoid unproductive behaviours.⁵¹ Some employers have resorted to monitoring their employees by providing them with a badge⁵² to continuously track their daily interactions with colleagues, monitor their body language, and assess their tone of voice under the guise of improving productivity. This infringes on privacy and alters the conditions of work, making the individual resemble a robot— a situation unknown even during the era of slavery.

B. 2. Ensuring Safety in Workplaces

AI is not human, and there is no basis for comparing it to humans.⁵³ It is a matter of scientific research only, and it is far from creating human intelligence.⁵⁴ It is necessary to understand the legal status of AI: is it a person or a thing?⁵⁵ And who is responsible for its actions?

The employer is obliged to ensure respect for fundamental rights, security, safety, and health within the workplace for everyone by taking all necessary measures to protect users from work-related risks. Initially, the AI should be tested under real conditions as a precautionary measure to identify and assess the risks associated with the use of robots and artificial intelligence, even though testing it in real conditions, such as in cities and on roads, will not be easy and will hinder the progress of this experimental phase.⁵⁶

The way the issue of intelligent systems has been addressed is surrounded by a lot of ambiguity. These systems lack legal personality, and therefore legal capacity, meaning they cannot have rights and obligations, express valid will, or be responsible for their personal actions.⁵⁷ Although this may seem simple at first glance, the situation becomes more complicated when the machine reaches an advanced stage of intelligence, i.e., when the machine invents and innovates solutions that were not programmed by humans. When it becomes capable of developing itself, modifying its behaviour, and reprogramming itself without the knowledge of its designer.

This occurred in 2016 when the AI AlphaGo acted on its own and searched for a solution in the game Go. It defeated the Korean world champion in the third round by inventing and predicting a method that had not been previously programmed by humans. The issue here is not imitation but innovation and invention by the smart machine, which surpasses and outperforms its designer.

In general, the treatment of damages caused by artificial intelligence remains under the scope of civil responsibility for now,⁵⁸ but these rules only cover cases where the cause of the act committed by the smart machine is due to human intervention, specifically the designer, operator, owner, or user,⁵⁹ who could have predicted and avoided what the machine did and caused harm.⁶⁰ Additionally, it should be programmed to act according to the rules governing ethics.⁶¹

B. 3. The Right to Wages

The worker has the right to receive a wage in exchange for the work performed, which should be proportional to the results of the work. The employer must also ensure wage equality among workers without any discrimination.⁶²

B. 3. 1. Proposed Solutions

The issue does not arise for the AI, as it will not claim its right to wages or bonuses linked to productivity. However, the problem lies in the need to secure an amount of money for the worker that guarantees a decent living, especially for those who will lose their jobs due to their inability to meet the challenges and keep up with this high wave of technology. A worker who has not refused a job or retraining for a position may benefit from unemployment insurance, as outlined by Algerian legislative decree No. 11.94. As for workers who lose their jobs, they may be eligible for a wage or allowance. Some consider that everyone should be entitled to this allowance without any conditions, while others have limited it to those who participate in specific activities.⁶³ Opinions differ on the nature of this financial support. Among the proposed solutions to guarantee the workers' right to a decent living and meet their various needs, several key solutions have been suggested:

- **Basic Income**

The basic income allows workers to afford their basic needs, and this idea is supported by Elon Musk,⁶⁴ the founder of PayPal, SpaceX, and Tesla. Some are optimistic and consider the idea acceptable, believing that a worker who finds himself receiving a wage without work might resort to volunteering in order to rebuild social relationships. On the other hand, others see it as the most degrading and foolish idea, as it would lead the worker into isolation and reliance on assistance. If the worker were granted this allowance, it would mean that they have been marginalised and have no place in the company.

It would also be an opportunity for the employer to rid themselves of the obligation to provide training, which the law requires, where each employer must carry out work related to training and improving the worker's level. The worker is obligated to follow this training to renew, deepen, and develop their general, professional, and technological knowledge.⁶⁵

Granting a worker an income or allowance without work is the shortest way for the employer to rid themselves of workers who will struggle to adapt to this new technology, at a lower cost compared to the expenses of continuous training for a worker who is supposed to keep pace with the technological development.

- **Universal Activity Income**

⁶⁶It is an income that brings together as many social benefits as possible in order to ensure a minimum level of human dignity. The state would be responsible for providing it, and this wage would necessarily be linked to an activity. It allows the worker to return to performing a job.

This idea does not support unconditional universal income; rather, the wage must be tied to certain conditions, the most important of which is work. Granting a person income without any contribution would lead to poverty and isolation. This is considered a form of soft poverty and a type of modern instability.

The problem of AI replacing humans and not receiving wages for its work raises a new issue: the need to find alternative sources to fund social security systems.

B. 3. 2 Artificial Intelligence and the Problem of Social Security Funding

The worker is considered the main source of funding for social security, and the replacement of humans with AI raises the issue of finding alternative sources to finance social security funds, which rely primarily on workers' contributions. These funds will indeed be at risk if humans are replaced by intelligent machines. This situation could lead to the disconnection of social protection from labour law, and therefore, it becomes necessary to search for other sources of funding besides the worker, such as imposing what is known as a tax on machines

While some believe it is too early to discuss imposing a tax on machines, as the time is not appropriate and it would hinder technological development and restrain investment, Bill Gates, one of the few wealthy individuals supporting the idea, suggested a one-time flat fee tax upon acquiring a machine.⁶⁷ However, imposing a uniform flat tax on everyone creates a kind of inequality between those with large capital and those with middle incomes. This led economist and Nobel Prize winner Robert Shiller to propose applying such a fee only to the wealthiest individuals.⁶⁸

Section Two: Artificial Intelligence and the Termination of the Employment Relationship

Artificial intelligence will have an impact on human dignity, as a worker who lacks high competence will find themselves excluded and marginalised. A person is not poor because they own nothing, but because they are unemployed.⁶⁹ The use of AI allows machines to perform more complex tasks and results in the dismissal of a larger number of human workers.

1. The Role of Artificial Intelligence in Eliminating Jobs and Creating New Ones

The major technological transformations that the world of work will undergo will lead to the elimination of millions of jobs⁷⁰ and cause significant disruption in a society that will be rebuilt based on algorithms.⁷¹ However, these economic and technological developments may actually be positive and are not a sign of the end of the world.⁷² Every invention will likely lead to the creation of new jobs. Innovation does not hinder the economy, and for every job that disappears, a new type of job may emerge. This is the idea presented by the economist Nicolas Bouzou in his book "On entend l'arbre tomber mais pas la forêt pousser."⁷³ Protecting the worker from the effects resulting from the replacement of humans by AI requires the anticipation, in advance, of the jobs that are threatened by it.

I. Jobs at Risk

Studies on this issue have significantly contributed to the concepts related to job loss, the most notable of which is the study conducted by Frey and Osborne from the University of Oxford, which predicted that 47% of jobs in the United States would be replaced by artificial intelligence within the next 20 years.⁷⁴ Similarly, the German consulting firm Roland Berger⁷⁵ predicted that 42% of similar jobs in France would be at risk of disappearance in the same time frame. Some even argue that the factories of the future will only require two workers.⁷⁶ However, regardless of the size and accuracy of these predictions, which may be exaggerated, it cannot be denied that these transformations are of great significance and require a collective response at the appropriate level.

The first jobs directly and currently threatened by artificial intelligence are those related to transportation and radiology. Statistics in the United States indicate that 66% of jobs will be eliminated by 2021, with these jobs primarily related to the transportation sector.⁷⁷ The United Nations has expressed concern about job losses in developing countries, such as African countries and Latin American nations.⁷⁸ These countries, which are characterised by low labour costs, will lose this key advantage as machines replace humans in developed countries, which previously provided this advantage to developing nations. This will directly affect these countries, as developed and wealthy nations will no longer need to invest in them to find labour at competitive prices.

This technological development will inevitably lead to a modification of the labour market, which requires rethinking the future of the entire educational system and social policy. Since artificial intelligence will directly affect jobs related to the middle class, which do not require high skills, this will push humans to abandon manual labour and shift toward innovation and creativity. Furthermore, the introduction of intelligent machines into the workplace will not only affect existing jobs but also threaten to eliminate future job opportunities, meaning there will be no new opportunities. Therefore, it is essential to proactively and accurately identify the sectors that will be primarily and directly affected by artificial intelligence, determine the jobs and tasks that will be replaced by intelligent machines, and identify the new qualifications that future organizations will require, to avoid any harm to the employing institution in the absence of proper anticipation of its needs.

A. Standards for Automating Jobs and Tasks

The current labour laws do not allow us to effectively determine which jobs and tasks will be automated and which workers will be affected by this change. Therefore, efforts must be made to identify these tasks in a precise and swift manner. Researchers in this field have established some standards, including both general and specific ones. The first was set by Autor David, Frank Levy, and Richard Murnane, relating to repetitive tasks, which is a broad standard. Machines can perform repetitive tasks independently, such as solving recurring problems based on explicit rules. This view was criticised because it relies on a very general standard, with a broad and continuously expanding scope.⁷⁹ The second standard is more fundamental, established by the French Employment Guidance Council in its 2017⁸⁰ report on automation. It includes four main criteria that allow us to identify tasks to be automated:

- **Lack of flexibility:** When the machine dictates the pace of work according to a specific rhythm, tasks are framed according to defined production standards per hour, where the output is measured within a set time, and the same task is repeated continuously through a series of movements and operations.
- **Lack of adaptability:** There is no need to stop work during the execution of a task or activity to perform an unexpected task. The required work is completed by strictly following pre-established instructions and commands.
- **Lack of problem-solving ability:** Humans typically turn to others when faced with an unusual situation or challenge in executing their tasks, whereas machines do not resort to others for help.
- **Lack of social interactions:** Communication with others is limited, and the pace of work is not influenced by external factors or demands. Moreover, these criteria are not fixed; they are subject to change due to the continuous and rapid development of artificial intelligence.

B. Competencies and Skills to Be Developed

Raising the challenge requires the contribution of everyone, both the employing organization and the worker, in developing skills that include cognitive abilities related to understanding the language of machines and numbers, problem-solving capabilities, creativity, and social skills required for certain working conditions such as teamwork, independence, as well as abilities related to precision and manual dexterity.

II. Creation of Jobs

Some argue that the claim that artificial intelligence is responsible for eliminating jobs and spreading unemployment is a fallacy, promoting a culture of catastrophism. They believe that this development will not hinder the economy; on the contrary, every invention leads to the creation of new job opportunities.⁸¹

The technological and economic transformations that the world will experience do not mean the end of work.⁸² The jobs that existed in the 19th century are not all present today; some have disappeared, and others have taken their place.⁸³ It is expected that humans will be removed from certain tasks as algorithms improve and may later become smart enough to handle some tasks on their own. However, there will always be a need for training algorithms and handling exceptions. Some tasks are difficult to automate, such as creative intelligence, due to our inability to define and encode creative values into algorithms.⁸⁴

Moreover, some believe that humans can compete with machines and possess a competitive edge in areas like interactions and social relationships. Humans are capable of adapting to their environment, are flexible, can solve problems,⁸⁵ as well as have the ability to innovate and perform certain precise tasks.⁸⁶

In the future, artificial intelligence will create new jobs and improve existing ones.⁸⁷ The first perspective can be considered optimistic and perhaps the most realistic. Instead of replacing workers with intelligent machines, they can be used as tools to help employees work better. Artificial intelligence will not affect the future of human jobs; rather, it is a method we use to develop job opportunities in the future.

2. Technological transformations: an independent reason for economic layoffs

The employer may resort to economic layoffs as a result of the economic and technological transformations experienced by the employing institution. From this perspective, the first question that comes to mind is whether the employer can consider investment in the field of artificial intelligence as an economic reason for dismissal—that is, a real and serious reason.

If we consider investment in AI as a real and legitimate reason justifying the collective reduction of the workforce, can the employer be allowed to proceed if the scale of the layoffs is very large and involves massive numbers? And is public opinion prepared to accept this new reality? We are likely to witness a development in the concept of economic layoffs in line with this technological revolution.

I. Current Guarantees in Labour Legislation

An employer may reduce the workforce if such action is justified by economic reasons resulting from technological changes, economic difficulties, or the reorganisation and restructuring of work within the company. If the reduction involves collective dismissal, it must be implemented in the form of simultaneous individual terminations and must be preceded by collective negotiations.

In such cases, economic dismissal and the elimination of jobs may be attributed to technological transformations within the company. But can an employer justify economic dismissal solely on the basis of investment in robotics and artificial intelligence?

The guarantees currently provided by labor law are not aimed at preventing employers from eliminating jobs due to economic and technological changes, but rather at limiting such eliminations by imposing certain obligations on the employer. When the employer is required to introduce significant and rapid economic transformations within the company, they must provide training for workers to help them adapt to the new situation before resorting to job cuts and economic dismissals in order for such dismissals to be justified.

In this context, we question the role that the judge handling labour disputes should play when reviewing dismissals based on economic grounds, relying on a new concept of economic reason that differs from the traditional idea of a justified cause for dismissal.

II. The Role of the Judge: A Complex Task

When does the judge consider a dismissal to be abusive? What are the objective criteria on which it relies? When the employer resorts to reducing the number of employees due to the introduction of artificial intelligence in the company, a new obligation is created for the employer, which is the obligation to achieve a result. This result is to train the employee to adapt to his new position before resorting to economic dismissal. Therefore, it is essential to anticipate the company's needs in advance due to technological developments in all sectors to avoid resorting to collective dismissals.

Continuous training is the biggest challenge and bet for the digital and technological revolution in this regard.⁸⁸ On the other hand, the issue may arise when the dispute is brought before the judge, and one of the parties in the case is an intelligent machine. The judge presiding over the dispute could also be the intelligent machine itself, which presents a major challenge to labour disputes.

The impact of artificial intelligence cannot be ignored when it plays a role in resolving judicial disputes at the level of judicial authorities or law offices. Artificial intelligence could be used to analyse and predict the outcomes of cases by assigning the task of resolving disputes to the intelligent machine, which can use thousands of models and contracts to extract and analyse data, process thousands of legal texts, and predict and analyse solutions by programming it with vast data sets. This allows it to reach expected and more efficient results with lower costs and, most importantly, in a shorter amount of time.

Conclusion:

Current studies indicate that by 2040, AI will surpass humans, and that it represents the greatest threat to humanity, according to statements by scientist Stephen Hawking. Today, everyone is aware of both the advantages and risks of artificial intelligence for humanity. For these reasons, it must always remain under human control, governed by rules enforced by law through establishing regulations that manage ethics in the world of technology. This can only be achieved through the establishment of specialised ethics committees in artificial intelligence, specifically for each sector. Ethical aspects are considered one of the most critical challenges for the future of artificial intelligence technologies.⁸⁹

Modern technology is neither inherently good nor bad; it is its use by humans that will determine whether it is beneficial or harmful, which is something difficult to predict at this time. In any case, regardless of differing opinions about whether artificial intelligence will serve humanity or not, it is certain that it will eliminate thousands of jobs.

The previous opinions, both in favour of and against replacing humans with machines, align with the political perspectives of their proponents. Some argue that we are transitioning from a labour market to a "job cemetery" – a relative concept – since human labour is an economic and social factor that cannot be replaced. Even the self-developing intelligent machine cannot function without humans providing the necessary data for its development. Highly advanced machines still require monitoring and maintenance. 85% of the positions that will be eliminated will not disappear until 30 years from now, affecting positions held by young people still in school. Therefore, the labour market today will not be directly impacted; it is future generations that will benefit from the new positions that artificial intelligence will create.

Artificial intelligence will lead to worker isolation, contribute to their marginalisation, and cause the deterioration of working conditions by eliminating social interactions and human connections at work – a process known as the "Dehumanisation of Work." It will also highlight the shortcomings of human qualifications compared to the machine, which will become the worker's master, leading to the loss of work as a value, since all tasks will be carried out automatically.

In conclusion, the gradual adoption of artificial intelligence in legal systems must be undertaken. It is undoubtedly a useful tool, but at the same time, it must be controlled as it entails several risks. Machines will eventually make decisions that directly affect individuals' rights and freedoms. This is because human decision-making is not based solely on logical thinking but also on values, principles, empathy, and a sense of right and wrong—qualities that machines inherently lack. Furthermore, humans can be held legally accountable for decisions made in ways that cannot be applied to artificial intelligence.

However, despite these concerns, it cannot be denied that the introduction of smart machines in institutions comes with positive aspects. Machines will greatly improve the processing of information compared to humans, as well as the planning of activities and coordination among stakeholders. Smart machines can also perform general machine monitoring. They will make human life easier. When we talk about artificial intelligence, we refer to machines that can find solutions to disputes presented to them and solve problems that did not exist before in the database—solutions that are not pre-programmed, meaning the machines can develop themselves.

In this case, we can talk about true artificial intelligence. Additionally, smart machines will have a positive impact on improving working conditions. They can handle physically demanding or dangerous tasks that pose risks to human health, ensuring safety in workplaces when replacing humans, for example, in cleaning facilities contaminated with toxic materials. They will also reduce the likelihood of errors significantly, thus reducing workplace accidents and occupational diseases, contributing positively to the workers' health.

The replacement of humans with smart machines will lead to the creation of new jobs. Machines require constant monitoring, despite the complementary role of humans in this case. Replacing workers with machines will alleviate the pressure on humans and enhance their contributions. For example, machines can handle the processing of accumulated, repetitive, and similar judicial files in the justice sector, as well as the direct online handling of disputes, saving both money and time.

Therefore, smart machines can adapt the legal system to achieve the required quality and consistency. They can process a large number of files in a short time in a more effective manner than humans, who are often influenced by external conditions. Machines are objective and unaffected by preconceived notions, leading to a more genuine form of justice than a human who might be unfair or even arbitrary. Consequently, smart machines will contribute to improving the quality and efficiency of the judicial system, thereby strengthening legal security.

Smart machines will revolutionise the employment sector as they provide the precision required by institutions. They are far more efficient than humans, as they can rapidly develop databases and data, and have the ability to generate problem-solving probabilities that far

exceed human capabilities. From this perspective, we must think about creating the jobs of the future. It is essential to control artificial intelligence in such a way that humans remain the core factor in its development, not its victim. Smart machines should be designed by humans and for humans.

The necessity of framing new transformations calls for the creation of a legislative workshop in the future. However, some argue that it is not yet the right time to enact strict laws, and that simply adhering to rules that ensure respect for ethics and basic freedoms, i.e., relying on what is known as "soft law," is sufficient. This would involve adapting existing legislation to meet new challenges.

There is a general consensus that enacting numerous and varied new laws would create chaos and hinder investment in artificial intelligence. Therefore, a charter on robotics, artificial intelligence, and ethical conduct for engineers working in the robotics field should be established.

It is enough for employers to recognise the necessity of adhering to legal rules in the field of AI, while at the same time, creating rules that fit their organisation, under the oversight of specialised bodies that, when necessary, will adapt these rules to comply with the law. Currently, it may not be feasible to establish a general system for AI, as it is a rapidly evolving and renewing field, meaning legal rules might become inapplicable before they are even implemented.

This transitional phase requires the establishment of a national electronic platform dedicated to artificial intelligence and algorithms, encouraging scientific research in AI and considering it a national issue, a significant and collective effort for the public good. It also calls for the creation of a high-level journal on artificial intelligence, similar to those in foreign countries,⁹⁰ with the purpose of conducting research in the field of AI and serving as a reference for researchers. In addition, efforts should be made to explain how algorithms work to the public in order to eliminate the confusion surrounding them.

The current labour law, which is still based on a traditional model of a single work location and time, should adapt its rules to these technological transformations and introduce specific legislation for artificial intelligence. There is also a need to create an administrative body that takes into account the challenges and future of artificial intelligence in Algeria and its impact on the world of work.

Finally, the development of AI should be directed in a way that serves humanity in all its diversity, ensures the interests of everyone are considered, and allows humans to always have the final say.

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