

## Artificial intelligence and its role in promoting the principle of the supremacy and rule of law

الذكاء الاصطناعي ودوره في تعزيز مبدأ سمو وسيادة القانون

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**Date of submission: 28/08/2023**

**Date of acceptance: 21/03/2024**

**Date of publication: 31/03/2024**

### **Abstract:**

The modern information revolution has led to the emergence of many advanced researches, perhaps the most prominent of which is artificial intelligence, whose research has become highly specialized and technical in many fields, of which the field of law is one, by simulating human intelligence through computer systems, which are able to think in the same way that the human brain works in order to be able to perform tasks instead of humans, which mainly require thinking, understanding, hearing, speaking and movement in a logical and organized manner.

Artificial intelligence has a positive impact on the principle of the supremacy of the law through the development of judicial systems such as the use of digital justice in a way that shortens time and achieves effort for jurists, in addition to the use of techniques in judicial decision-making processes related to accountability, transparency and integrity, and also with regard to judicial protection of fundamental rights and public freedoms and the administration of justice and equality in a way that consolidates confidence and credibility in the judicial institution, which contributes to the actual construction of the state of right and law and making the principle of the rule of law above all considerations.

**Keywords:** Artificial intelligence; Human intelligence simulation; Computer systems; Digital justice; Development of judicial systems; State of law and law; Principle of the rule of law.

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الملخص:

أدت الثورة المعلوماتية الحديثة إلى ظهور العديد من الأبحاث المتطورة ولعل أبرزها الذكاء الاصطناعي الذي أضحت أبحاثه على درجة عالية من التخصص والتقنية في العديد من المجالات والتي يعد مجال القانون واحدا منها، وذلك عن طريق محاكاة الذكاء البشري عبر أنظمة الكمبيوتر والتي تكون قادرة على التفكير بالطريقة نفسها التي يعمل بها الدماغ البشري لكي يتمكن من أداء مهام بدلا من الانسان والتي تتطلب أساسا التفكير والفهم والسمع والتكلم والحركة بأسلوب منطقي ومنظم. ويؤثر الذكاء الاصطناعي تأثيرا إيجابيا على مبدأ سمو القانون وذلك من خلال تطوير الأنظمة القضائية عن طريق مثلا استخدام العدالة الرقمية بما يختصر الوقت ويحقق الجهد لرجال القانون بالإضافة على استخدام تقنيات في عمليات اتخاذ القرارات القضائية المتعلقة بالمسائلة والشفافية والنزاهة فيما يتعلق بالحماية القضائية للحقوق الأساسية والحريات العامة وإقامة العدل والمساواة بما يرسخ الثقة والمصادقية في المؤسسة القضائية وهو ما يسعى في بناء الفعلي لدولة الحق والقانون وجعل مبدأ سلطان القانون فوق كل اعتبار.

**الكلمات المفتاحية:** الذكاء الاصطناعي؛ محاكاة الذكاء البشري؛ أنظمة الكمبيوتر؛ العدالة الرقمية؛ تطوير الأنظمة القضائية؛ دولة الحق والقانون؛ مبدأ سلطان القانون.

### Introduction:

Throughout history, man has searched for an invention that can mimic the human mind in its thinking pattern, so he searched to find a logical explanation for the concept of artificial intelligence, especially because of the great role played by machines in the development of humanity and the transfer of the world to development and prosperity.

Over time, artificial intelligence was present only in science fiction, sometimes highlighting its positive repercussions on humanity and its bright sides, and at other times highlighting its negative effects, as it was described as the sworn enemy of humanity and controlling it.

However, the gradual development of the world was the nucleus for the explosion of the first spark of the industrial revolution in Britain at the end of the 18th century and the beginning of the 19th century, which enabled Britain and the major world powers such as the United States of America, France, Russia, Germany, Japan... etc. from achieving huge superiorities, which made them huge economic powers, which is what "Klaus Schwab", founder of the World Economic Forum, said that technology emerged thanks to the industrial revolution, which enabled the creation of new ways to see the world and open up to it, which led humanity to a profound change in various fields of life, and at the end of the twentieth century and the

beginning of the twenty-first century, thanks to the great qualitative leaps of humanity in the field of technology, artificial intelligence has become an inevitable scientific fact. It occupied all sectors and became an integral part of daily life, and the human use of the latter became inherent in order to achieve the public good in society by using logistics and data extraction as a result of the great and enormous power of computers and relying on mathematical methods with highly efficient scientific standards.

Many questions have been raised in the field of artificial intelligence, the most important of which was that can a machine have a mind and consciousness? Alan Turing replied that if the device works with intelligence comparable to a human, then its intelligence is comparable to that of a human, so in the end we can only judge the intelligence of the machine based on its performance.

This is why artificial intelligence has become the talk of the world today, as it is one of the most frequent scientific terms, and this is after the emergence of the recent version of the (chat Gpt) program, which specializes in creating written texts that simulate human texts with an unprecedented degree of accuracy and at high speed as well, and this program has drawn everyone's attention to the amazing progress reached by artificial intelligence technologies and models and its applications in various political, economic, medical, cultural fields... Etcetera.

In the field of law, the digital world today is overflowing with a huge amount of data, documents and legal documents that are used to indoctrinate and feed the latest technologies in our time, and these smart applications are concerned with downloading the most complex challenges in various industries that have an impact on the legal professions and judicial systems so that they have made a radical change, especially with the emergence of digital justice, remote litigation and the adoption of electronic trials, and it was found that the use of artificial intelligence in trials and judicial services has helped courts to accomplish Routine tasks and contributed effectively to achieving access to prompt justice, which prompted many countries to keep pace with these changes by developing strategies and preparing structures that prepare for the integration of artificial intelligence into the work of judicial systems after it proved to simulate human mental abilities and work patterns, The latter also played a prominent role in conceiving a proactive conclusion about the results of lawsuits at maximum speed, and contributed to guiding and enlightening lawyers to develop and define litigation strategies, and constituted an effective tool in deciding spending and investment in the field of financing lawsuits, and showed his ability to guide

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lawyers and legal advisers on the best ways and means to conduct negotiations to reach a resolution of a particular dispute accurately and quickly and provide time allocated to investigate and collect the necessary information on a particular issue, as it became also likely Artificial intelligence should address the challenges facing laws and researchers, as the use of the latter reduces the time lawyers spend conducting legal research due to its speed in analyzing a large amount of data and documents accurately and comprehensively, and undoubtedly will have a significant impact on increasing the productivity factor in this sector.

Smart applications also facilitate the work of jurists to perform their tasks accurately, especially in law firms and firms who have paid great attention to the use of artificial intelligence because it contributes to due diligence by lawyers and researchers to collect basic information and evaluate decisions related to previous cases in a comprehensive evaluation in order to provide legal advice and services accurately and effectively.

Artificial intelligence today has proven its ability to accomplish tasks that require human intelligence, and this ability has become closely related to the revolution of thought and the efforts of creators, and there is no doubt that it has applications that simulate human intelligence, and for this we see today that most countries are spending exorbitant investments to motivate creators and thinkers to combine their abilities and skills in order to develop artificial intelligence and integrate its smart applications in the field of legal professions and the work of judicial systems, which contributes to strengthening the principle of the rule of law. Applications of artificial intelligence in the field of law requires examining the text in accordance with principles, standards and values that are essential and closely related to human rights, which are the backbone in building a modern legal state and the main pillar of any democratic system in order to achieve legal and judicial security in any country, the more the principles of good governance and its components are applied, the more this leads to the establishment of the state of right and law and ensuring its legitimacy.

In light of the above, the main problem posed for this research lies in answering the following question: To what extent can artificial intelligence be considered a guarantor or a basic criterion for achieving the principle of the supremacy and rule of law?

In order to answer the problem of research and familiarity with the main aspects of the topic, we decided to rely on two approaches, the descriptive

approach and the analytical approach, which accompanied us in various axes of the topic.

The nature of the research required the work to be presented in a systematic plan based on theoretical and practical presentation, so this study was divided into two main axes, as the first axis was the concept of artificial intelligence and the second axis was devoted to the impact of artificial intelligence on the principle of supremacy and the rule of law.

So that the (first axis) addressed the reality of artificial intelligence, by standing on its definition and explaining its applications in various fields.

The second axis was devoted to the impact of artificial intelligence on the principle of the supremacy and rule of law.

The study concluded with a review of the most important findings and a set of recommendations and suggestions.

### **The first axis: the reality of artificial intelligence**

The term artificial intelligence has recently increased in light of the technical renaissance that the world has witnessed in the field of machine development, after it was just a dream or imagination in the middle of the last century, today it has become a tangible scientific reality and this is thanks to the greater successes it has witnessed for its use in many fields and this success is due to many factors, including the great power of computers and increased focus on solving specific sub-problems, and creating new relationships between the field of artificial intelligence and other areas of work in problems. Thus, scientists today are committed to following strong mathematical curricula and strict scientific standards based on a high degree of specialization and technology<sup>1</sup>.

We can say that there is no specific definition of artificial intelligence, and from it it was necessary to delve into the search for a comprehensive definition and a barrier to artificial intelligence (first), and to identify the most important journals that he developed (second).

#### **First: Definition of Artificial Intelligence:**

According to the scientist "John Mecarty", one of the leaders of artificial intelligence research at Dartmouth College, artificial intelligence is defined as a way to make a computer or make a robot in which control is by a computer or a program that thinks intelligently in the same way that

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<sup>1</sup> - Badri Jamal, Artificial Intelligence, Research on a Legal Approach, Algerian Journal of Legal and Political Sciences, University of Algiers 1, Faculty of Law and Political Science, Volume 59, / Issue 4, 2022, p. 173.

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intelligent humans think, and artificial intelligence is achieved by studying how the human brain thinks related to intelligents, and how humans learn, decide and work while trying to solve a problem, and then use the results of this study as a basis for developing intelligent programs and systems<sup>1</sup>.

The European Commission has defined it as: They are systems that appear to achieve specific goals, and these AI-based systems can be based on software only and work in the virtual world only, such as voice assistants, image analysis, and programs or search engines can include speech and facial recognition systems in devices such as robots<sup>2</sup>.

As for the robot, the American Institute of Robotics defined it as: "A reprogrammable, multifunctional manual manipulator designed to move materials, parts, tools or special devices through various movements programmed to perform various tasks.

As for the Japan Federation of Industrial Robotics, it defines the robot and considers it a machine for all purposes, which is equipped with limbs and devices to perform specific tasks and is able to rotate and replace the human factor by automatic performance of movements, so it is a reprogrammable machine that works in a semi-autonomous or complete way to perform manufacturing processes such as industrial robots or provide services useful for human well-being such as service robots.

Based on the above definitions, we can say that artificial intelligence is a branch of computer science, looking at understanding the application of technology based on computer simulation of the characteristics of human intelligence, artificial intelligence is only an innovation made by man through a machine or computer through programming in order to carry out a set of functions and activities that were exclusive to humans only<sup>3</sup>.

Often, the term "artificial intelligence" is not associated with machines as a whole, but with computer programs that are installed on these devices, which are characterized by certain behavior and characteristics that make them simulate human mental abilities, and this is logical as the machine or device itself resembles the human body at a time when the human mind performs all the functions related to thinking, making decisions and solving problems... Etc.

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<sup>1</sup> - Abderrahim Rajwani, The Information Age, The Wildness of Information Technology in the Light of Globalization, Knowledge for All Series, No. 09, September 1999, An-Najah Press, Casablanca, p. 47.

<sup>2</sup> - Marie angèle hermitte, qu'est-ce qu'un droit des science et des technique ? traces, revue des science humaines n° 16,1987p 63.

<sup>3</sup> - L'intelligence artificielle consiste à faire exécuter par une machine des opération que nous faisons avec notre intelligence, voir NEVEJANS (nathalie), op-cit, p31. 20200.

In general, artificial intelligence refers to the ability of the robot controlled by the digital computer to perform general tasks associated with intelligent objects, and according to what the literature on artificial intelligence indicates, it is the study of the design of intelligent customers,<sup>1</sup> A smart customer is a system that accommodates its environment and takes positions that increase its chance of success in achieving its mission or that of its team.

## **Second: Artificial Intelligence Applications**

Artificial intelligence consists of a rich set of methods and disciplines, including vision, perception, speech, dialogue, decisions, planning, problem solving and many other applications that allow self-learning, and it is better to look at artificial intelligence as a set of technologies and techniques used to complement traditional human features such as intelligence, analytical ability and many other capabilities, and we will try here to review some areas that have improved and advanced thanks to the use of artificial intelligence techniques.

### **A- In the field of data analysis:**

Some of the most important AI technologies are the generation of language and natural text from data, voice and image recognition, virtual clients, machine learning platforms, decision management, deep learning, biometrics and other technologies.

The accuracy of the AI machine learning model depends on the quality and quantities of data on which the AI model is trained, and in real life, data is often badly labeled, so there is a need to standardize data sets, by conducting training courses on ethical applications of AI.

As access to data is very difficult, best practices must be identified under circumstances where data can be made available while respecting ownership and explicit promises of confidentiality for certain types of data<sup>2</sup>.

It is worth noting that breaches can cause and it is worth noting that security breaches resulting from cyberattacks can cause serious consequences, technologies such as unified learning can reduce risks by enabling artificial intelligence models where they can be trained across devices that hold data internally without exchanging it, while privacy technologies help ensure the

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<sup>1</sup> - NEVEJANS (nathalie), traité de droit et d'éthique de la robotique, Dalloz, n° 4,6 février 2020 (p.p.225-230).

<sup>2</sup> - Saad Boubha, Artificial Intelligence, its Applications and Repercussions, Journal of Financial and Business Economics, Abdelhafid Boussouf University Center, Volume 6, Issue 4, December 2022, pp. 97, 98.

-See also: Faten Abdullah Ibrahim Saleh, The Impact of Applying Artificial Intelligence and Emotional Intelligence on the Quality of Decision Making, Master's Thesis, Middle East University for Graduate Studies, Jordan, 2008/2009, p. 90.

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protection of personal data, especially in light of what countries are experiencing today cyber colonialism, which is known as security. Informatics is mainly aimed at taking a set of preventive measures and measures and means that will reduce the risk of attack on software, computers or checks, which includes tools used to confront and stop piracy and detect encrypted communications.

### **B- In the field of intellectual property management:**

AI is increasingly contributing to important developments in technology and business, and AI is being used in a wide range of industries and affecting almost every aspect of creativity. The growth of AI is fuelled by the availability of large amounts of training data as well as advances in high computing power at an affordable cost.

The growth of AI in a range of technical areas raises a number of policy questions regarding IP, the main focus of which is whether the existing IP system needs to be modified to provide balanced protection for machine-driven businesses and innovations that AI relies on to operate.

In the global innovation economy, the demand for intellectual property rights, such as patents, trademarks, industrial designs and copyrights is rapidly increasing to become more complex, and artificial intelligence, big data analytics and new technologies<sup>1</sup> can be used to address the growing challenges faced by IP offices.

### **C- In the field of medicine:**

The applications of artificial intelligence in the field of medicine play a major role, so that it helps in the diagnosis process, improving treatment plans, developing drugs, monitoring and caring for the patient, and the applications of the latter are used in the field of personalized medicine, and artificial intelligence algorithms can also be used to analyze large amounts of data based on electronic health records to prevent and diagnose diseases.

Multiple disciplines in medicine have shown an increase in the number of research related to artificial intelligence such as radiology and telemedicine.

In radiology, the ability to analyze radiological results may enable doctors to observe finer details and changes in radiology that they may not notice.

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<sup>1</sup> - Fairouz Amrouche, Copyright in the Light of Artificial Intelligence, an international forum entitled Artificial Intelligence is a new challenge to law, University of Algiers 1, Faculty of Law and Political Science, Annals of the University of Algiers, No. 7, 2018, pp. 164-165.



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The Stanford study, which resulted in an algorithm that enables it to detect pneumonia in a better way than radiologists, helped the Stanford study.

While telemedicine, the increase in orientation to the latter has raised its value and the applications of artificial intelligence and its fields, the ability to monitor patients by artificial intelligence may allow the transfer of patient data to the doctor in the event of any activity in a disease in the patient, and the use of a specific device that the patient can wear may allow continuous and continuous monitoring of his health condition and monitor any changes in his condition, which may sometimes be more accurate than a person notices<sup>1</sup>.

### **D- In the field of the financial sector:**

Today, we are witnessing rapid maturity and a better understanding of AI models, which are expected to bring rapid change and significant growth in the financial services sector, as international and local financial institutions aim to find innovative ways to amplify their revenues<sup>2</sup>, whether by helping clients make better decisions regarding their finances or by increasing their capital through investments.

It is also known that customers are always looking to search for a consultant to help them achieve their financial goals, as the client meets with the advisor to determine a better strategy, review and modify it according to what is embodied over time, but artificial intelligence is trying to change this relationship and transform it completely by replacing the financial advisor, AI-based systems may help make more informed, safer and profitable decisions as well, and this is by providing smart financial tools for individuals on a personal level and developing strategies for For companies by studying markets and risks and predicting influential future changes<sup>3</sup>.

### **E- In the field of education:**

Artificial intelligence plays a critical role in the field of education to be the ideal tool to achieve the fourth goal of the United Nations Sustainable

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<sup>1</sup> - Dr. Adel Abdel Nour, Introduction to the World of Artificial Intelligence and its Applications, Dar Al-Safa for Printing, Publishing and Distribution, 2010, p. 39.

<sup>2</sup> - Hicham Alaq, Applications of Artificial Intelligence in Financial Institutions: An Introduction to Activating Financial Inclusion, Journal of Economics and Sustainable Development, Vol. 5, No. 1, Larbi Al-Tabmi University (Tebessa), Faculty of Law and Political Science, Algeria, 2022, pp. 710.

<sup>3</sup> - Hosseini Djazia, "Universal Digital Financial Services to Support Financial Inclusion in the Arab Countries", Journal of North African Economics, Vol. 16, No. 23, pp. 997 ff.

See also:

-BECCALLIE, Elliot v (2020) artificial intelligence and ethics in portfolio management. Digital business transformation (pp19-30) cham springer international publishing.

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Development Goals, which states: "Ensure equitable and inclusive quality learning and promote lifelong learning opportunities for all."

AI is also seen as a tool to fill the needs and shortcomings of current education by customizing the educational experience, simplifying administrative tasks and enhancing efficiency and effectiveness practices, allowing students a wider and more meaningful access to teachers by spending their time on knowledge tasks that machines cannot afford<sup>1</sup>.

### **F-Artificial Intelligence for the Common Good as a Platform:**

The AI for Good platform focuses on the uses of AI to help meet the basic needs of people, including the 17 Sustainable Development Goals set by the United Nations to achieve by 2030, the aim of the summit is to identify practical applications of AI to advance the SDGs.

### **Second Theme: The Impact of Artificial Intelligence on the Principle of the Supremacy and Rule of Law.**

The legal state is described as that democratic state that adheres to the principle of the supremacy and rule of law and derives its authority, legitimacy and effectiveness from the free will of the people, as well as is committed to providing legal, judicial and administrative guarantees for the protection of human rights, dignity and fundamental freedoms.

In order to achieve the state of right and law, several elements and elements must be available as guarantees for the subordination of public authorities to the law and the establishment of a legal state, the most important of which are: the existence of a constitution and sovereignty constitutional legitimacy, the application of the principle of separation of powers, the independence of the judiciary, and the existence of a democratic system in order to guarantee and strengthen the rights and freedoms of individuals.

However, with reference to the technological development witnessed by the world, the applications of artificial intelligence included most areas of life, including the legal field, which was also not immune from artificial intelligence technology, especially recently, as the Global Judicial Integrity Network studied the emerging use of artificial intelligence in justice systems, taking into account ethical legal principles and the most important

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<sup>1</sup> - Malika, Artificial Intelligence and the Future of Distance Education, research published in the Journal of Studies in Development and Society, Volume 6, Issue 3, 2021, p. 20.

- See also: Dr. Khaled Ahmed Buqahous, The Role of Artificial Intelligence in Future Education, an article published on the following websites:  
<http://www.akhbar-alkhaleej.com/news/article/1220434>.

components on which countries are based in their legal system in a way that enhances the principle of the supremacy and rule of law<sup>1</sup>.

Based on this, we tried through this paragraph to shed light on the concept of the rule of law and the rule of law and then address the extent to which artificial intelligence affects the principle of the rule of law:

**First: The concept of the rule of law and the rule of law**

**A: Definition of the rule of law:**

The state is described as a state of law as long as it is subject to the law regardless of its constitutional form, and the legal state is that which is subject to the law in all aspects of its legislative, executive and judicial activities, in other words, it is the one that subordinates itself and not the one that puts itself above the law<sup>2</sup>.

The concept of the rule of law appears in the respect and application of the law by all rulers or convicts, which means determining the authority of the bathroom and not their superiority over the law, meaning that the state of law according to the above is a form of governance management, as it subjects all citizens, including rulers and all institutions, entities and public and private bodies, to legal accountability with justice, fairness and equality through an independent, impartial and effective judiciary that guarantees the protection of basic human rights and public freedoms and allows the participation of citizens in decision-making. Evaluate the separation of powers and achieve transparency in procedures and laws<sup>3</sup>.

Afin d'incarner et de consolider l'état juridique, des garanties ou des mécanismes doivent être disponibles, principalement comme suit:

**1- L'existence d'une constitution et la suprématie du principe de légitimité:**

Chaque État a une constitution qui l'établit et montre ses fondements et les règles qui la régissent, c'est le pilier principal de l'État de droit, car il adhère à tous les organes de l'État, y compris le pouvoir exécutif et ses dispositions sont efficaces face à tous les dirigeants et gouvernés, et les règles constitutionnelles occupent le sommet de la pyramide juridique, car

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<sup>1</sup> - Paul Gowder, artificial intelligence and the rule of law, university of toronto, law journal 2017,p68.

<sup>2</sup> - Bahloul Khaled, Judicial Security and the Rule of Law, "Algeria as a Model", Journal of Human Rights and Public Freedoms, Volume 6, Issue 3, University of Mostaganem, Algeria, Faculty of Law and Political Science, 2021, pp. 631.

<sup>3</sup> - Sharifa Kalaa, Establishing the State of Right and Law through the Application of the Principles of Good Governance, Journal of Mediterranean Notebooks, Volume 5, Issue 3, University of Algiers 3, Faculty of Law and Political Science, December 2020, pp. 28.

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elles sont la première référence pour la légalité et la constitutionnalité des actions de l'administration et leur violation décrit ces actes comme illégaux et les rend dignes d'annulation, et les règles constitutionnelles sont définies comme un ensemble de règles juridiques qui déterminent le type d'État et la forme de gouvernement. Elle régit les trois autorités de l'État et les relations entre elles, définit les compétences de chaque autorité et définit les droits fondamentaux et les libertés publiques.

- As for the principle of legality: it means that the actions of the administration are within the limits of the law in its broad sense, which includes all binding rules, whether written or unwritten, and whatever their source within the limits of their gradation (constitutional law, ordinary law, regulations), whatever the administration's behavior and work, whether legal or material<sup>1</sup>.

– Working with the principle of separation of powers: The principle of separation of powers is one of the basic principles on which modern democratic systems are based, and thanks to the emergence of this principle to the famous French thinker and philosopher "Charles Louis de Sekinda" nicknamed "Montesquieu", who detailed his understanding in his famous book "The Spirit of Laws" written in 1748 and the reason for the emergence of this principle was the spread of monarchies in 18th-century Europe, where all powers were concentrated in the hands of kings.

This principle is defined as a guarantee of public freedoms and individual rights, as well as a guarantee of balance between the three powers of the State in order to prevent the concentration of power in the hands of one person in order to evaluate actions continuously between these different authorities.

### **–This principle has the following advantages:**

- Preventing tyranny and preserving freedoms, as the grouping of powers in the hands of one authority leads to tyranny and infringement of the rights and freedoms of individuals and the failure to give the opportunity to conduct public affairs to the people.

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<sup>1</sup> - Fadi Naim Jamil Alawneh, The Principle of Legality in Administrative Law and the Guarantees of its Achievement, Master's Thesis in Public Law, Faculty of Graduate Studies at An-Najah National University in Nablus, Palestine, 2011, pp. 10, 11.

See also: Ait Shaalal Nabil, Elements of Building the State of Law, a supplementary memorandum for obtaining a master's degree in public law, Constitutional Law Branch, Hajj Lakhdar University, Batna, Department of Law and Political Science, Faculty of Law, 2012, 2013, p. 45.

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- Achieving the legitimacy of the state, as it is an effective means of ensuring respect for and application of laws and it prevents the issuance of laws that advance personal interests at the expense of the public interest.
- The principle of separation of powers leads to the distribution of functions and tasks in the state, so each authority becomes competent in its field and exercises its work with perfection and dedication, the principle, if it is legal, is also a rule of the art of politics<sup>1</sup>.
- Independence of the judiciary: The independence of the judiciary is one of the most important guarantees and mechanisms to ensure the achievement of the principle of judicial security<sup>2</sup> Constitutional jurisprudence defines the principle of independence of the judiciary based on two basic concepts: the concept of personal and the concept of objective, that is, a concept related to judges as individuals and an objective concept linked to the judiciary as a state authority.
- As for the personal definition of the principle of the independence of the judiciary, it is to provide complete independence for judges by distancing them from any fear or authority and making them subject to the authority of the law only.

As for the objective definition of the principle of the independence of the judiciary, it is considered the sole authority and the only reference for the settlement of disputes, i.e. the general reference for all citizens without discrimination or bias.

The independence of the judiciary is an essential and pivotal criterion for the embodiment of justice, ensuring respect for and maintenance of human rights and freedoms, enhancing the confidence of litigants in the procedures, efficiency and performance of the judicial institution as the impregnable fortress of the state of right and law and the main lever of the development process, as well as a challenge that must be raised to develop justice to keep pace with economic and social transformations<sup>3</sup>.

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<sup>1</sup> - Farid Allouache, Nabil Kargour, The Principle of Separation of Powers in Algerian Constitutions, Journal of the Impact of Jurisprudence on the Legislation Movement, Mohamed Khider Biskra University, familiar with it on the site:

<http://lab.univ-biskra.dz/ijdl/images/banners/eg4>

-See also: Debih Miloud, The Principle of Separation of Powers in the Algerian Constitutional System, Master's Thesis, University of Hajj Lakhdar Batna, 2006, p. 38.

<sup>2</sup> - Abdel Moneim bin Ahmed, Marshi Abdel Samad Radwan, The independence of the judiciary as a constitutional guarantee for the establishment of the state of law, Al-Turath Magazine, No. 26, Volume II, Zayan Ashour University, Djelfa, Faculty of Law and Political Science, pp. 364

<sup>3</sup> - Massoudi Hisham, The independence of the judiciary as a primary guarantor for achieving justice and combating corruption, Al-Turath Magazine, No. 31, Volume I, Faculty of Law and Political Science, Sidi Bel Abbes, 2019, pp. 22 ff.

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The principle of the independence of the judicial institution is stipulated in Article 163, second paragraph of the 2020 constitutional amendment, as the content of the article states the following: "The judge is independent, subject only to the law", and Article 172 stipulates in its third paragraph of the constitutional amendment of 2020 that: "The judge shall prohibit the Supreme Judicial Council in the event that it is subjected to any prejudice to its independence", and Article 173 stipulates that: "The judge shall refrain from anything that violates the duties of independence and impartiality and shall abide by the duty of discretion. The judge is responsible before the Supreme Judicial Council for the manner in which he performs his duties, in accordance with the forms and procedures specified by law."<sup>1</sup>

Many regional and international conventions also stipulate the principle of the independence of the judiciary, including the Cairo Declaration emanating from the Second Conference on Arab Justice held in February 2003, which stipulates that: "The independent judicial system constitutes the main pillar in support of civil liberties, human rights, comprehensive development processes, reforms in trade and investment systems, regional and international economic cooperation and building democratic institutions."<sup>2</sup>

The 1985 Montreal, Canada, World Declaration on the Independence of Justice Conference stipulates: "The State shall guarantee the independence of the judiciary, and it is the duty of all governmental and other institutions to respect and observe the independence of the judiciary."<sup>3</sup>

The Seventh United Nations Congress on the Prevention of Crime and the Treatment of Offenders, held in Milan from August 26 to September 6, 1985, and approved by the General Assembly in its resolutions 40/32 of November 29, 1985 and 40/146 of December 13, 1985, stipulated the following: "Judges shall decide on matters and disputes submitted to them

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-See also: Farouk Al-Kalani, *The Independence of the Judiciary*, Arab Center for Publications - Beirut, second edition, 1999, p. 27.

-See also: Najib Ahmed Abdullah Al-Jabali, *Guarantees of the Independence of the Judiciary*, Modern University Office, 2007, p. 42.

-See also: Ammar Koussa, *The Principle of the Independence of the Judiciary in the Arab Legal Systems*, An Analytical and Evaluation Study, Algeria as a Model, *Journal of Studies and Research*, University of Djelfa, Issue 18, March, 2015, p. 146 .

<sup>1</sup> - Review the content of Articles 172 and 173 of Presidential Decree No. 20-442 of 15 Jumada El Oula 1442, corresponding to December 30, 2020, relating to the issuance of the constitutional amendment.

<sup>2</sup> - Review the content of the Cairo Declaration emanating from the Second Conference on Arab Justice held in February 2003.

<sup>3</sup> - Review the content of the Universal Declaration on the Independence of Justice adopted at the Montreal Conference, Canada, in 1985.

without prejudice and on the basis of facts and in accordance with the law, and shall not be subjected to any restrictions imposed on them or by any party that may be directly exercised on them. or indirectly or for any reason of unlawful influence, solicitation, pressure, threats or interventions"<sup>1</sup>

4- The existence of a democratic system: Within the democratic system, the readiness of the democratic society is based, where the laws it provides for itself reflect its culture and political system. The concept of a democratic system expresses the system in which the supreme authority of the people is where the people exercise their power through citizens who represent the people and are chosen through an electoral system, so it is the set of ideas that revolve around freedom and is the scientific and practical framework for consolidating and building the rule of law<sup>2</sup>.

In general, the democratic system is a means of governance based on a set of principles, the most important of which is respect for the will of the popular majority and the preservation of their rights and freedoms through institutions that support these rights and freedoms and give them the right to express their opinion freely and give them the opportunity to participate in the management of public affairs and political decision-making, so it is one of the guarantees of establishing majority rule and activating the degree of political participation.

5- Ensuring the rights and freedoms of individuals: Human rights and freedoms are rules that guarantee all people in the world to live in a standard of living that achieves dignity for them, as the most important features are justice, equality, non-discrimination and discrimination, so the importance of rights lies in their emphasis on human dignity as they help him develop himself, use his skills and mental abilities, and obtain all his rights in society, and also provide him with protection from those who have power or authority or who abuse it to harm others or directly affect Life Chances or Freedom<sup>3</sup>.

The judiciary is the safe way for individuals to protect their rights and freedoms from all attacks that threaten them, as we can say that it is the natural guardian of freedoms.

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<sup>1</sup> - Consideration of the contents of the Seventh United Nations Congress on the Prevention of Crime and the Treatment of Offenders, held in Milan in 1985, approved by the General Assembly in resolution 40/32 of 29 November 1985 and resolution 40/146 of 13 December 1985.

<sup>2</sup> - A.Cherral, L. Soualem %de pulques aspects de l'état de droit en Algérie et en Norvège, oslo, octobre, 2008, p95.

<sup>3</sup> - Belhoul Zakia, Application of Human Rights Treaties in Britain, Master's thesis in Public Law, Ferhat Abbas University, Sétif, Faculty of Law and Political Science, 2010/2011, p. 33.

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In general, the guarantee of the rights and freedoms of individuals is based on the totality of legal rules deduced from constitutional law and international law, whose mission lies in the legal defense of human rights against the deviations of the authority located from the state apparatus, as it is thus a political, social and legal reality aimed at establishing the foundations of human life on foundations compatible with the requirements of justice and sound conscience, which is in its entirety a title for right, justice and equality in human society<sup>1</sup>.

Rights and freedoms are stipulated in Chapter I of Part II of the decree on fundamental rights, public freedoms and duties from Article 34 to Article 77<sup>2</sup>.

B- The concept of the supremacy and rule of law: One of the pillars of the legal state is the extension of the principle of the supremacy and the rule of law, as it is thus a basic criterion for achieving both judicial and legal security.

- The rule of law means that the legal rule comes above the wills of all individuals, whether ruling or governed, and obliges them all to follow its provisions, and if they do not abide by the legal rule, their behavior is illegal and illegal, as the law is the one that governs the work of all state authorities, and determines its competencies and the scope in which it operates, so that if one of them exceeds the specified scope, its work does not have any legal effect, and its action is considered a usurpation or transgression of authority. The principle of the rule of law, then, is a sure guarantee of the principle of the legality of the actions of all State authorities<sup>3</sup>.

Administrative law scholars such as Leon Duge, Barthélemy and Doiz link the principle of the supremacy and rule of law to the principle of legality.

- The jurist "Leon Duge" believes that the essence of the principle of legality means that every act is subject to the rule of law, and if the actions of individuals and their subordination to the law do not raise controversy,

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<sup>1</sup> - Jean Marie et Jean Bernard, droit public tome1 : droit constitutionnel, libertés publiques, droit administratif, 12<sup>ème</sup> édition. Sirey, paris 1996, p164.

-See also:

-Caroline Iacroux, protection des droits et libertés fond am ent aux session 2015, Dalloz p87.

-See also: Ahmed Fathy Sorour, Constitutional Protection of Rights and Freedoms, Dar Al-Shorouk Printing, Cairo, 1999, pp. 40.

<sup>2</sup> - Reviewing the content of Chapter One of Chapter II, entitled Fundamental Rights, Public Freedoms and Duties of the 2020 Constitutional Amendment from Article 34 to Article 77.

<sup>3</sup> - Ahmed Shoukry, Good Governance and the Rule of Law, taken from the website: [www.facebook.com/notes/ahmed-shoukry](https://www.facebook.com/notes/ahmed-shoukry).



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the actions of public authorities and the existence of what obliges them to follow the rule of law is the basic issue for the principle of legality<sup>1</sup>.

- The jurists "Barthélemy" and "Doiz" also believe that the principle of legality is concerned with the control of the law and its superiority and supremacy, and that the subordination of the authority to the law and the imposition of respect for the legal rule on the person who issued that rule is the essence of the idea of legality.

In general, the modern legal democratic state in which all its organs abide by the laws issued by the competent authority as a basis for the legality of the actions of these organs, which ensures respect for the rights and freedoms of individuals in the face of public authority, considering that it has become governed by law alone, far from the whims and control of the authority<sup>2</sup>.

It should be noted that the term supremacy and rule of law has many articles, as it is termed in England as the principle of "rule of law", while in the United States of America it is called the term "constrained government" or the term "government of law, not government of persons", as it is called in both Egypt and France the term "rule of law".

Second: The role of artificial intelligence in promoting the principle of the supremacy and rule of law: The uses of artificial intelligence in light of the explosion of the technological revolution have become increasingly growing because of the great opportunities it provides in many fields, most notably the field of law, especially the mother of the latter is more affected by the vitality it knows due to new technologies, and this means that the technological climate encourages the opening of legal thought, which allows the law to maintain its scientific characteristic to achieve its control function.

Artificial intelligence is an effective factor in the progress of law, as discussing the inadequacy of man-made rulings encourages the practice of the logic of critical and analytical thought, and the innovative effort of jurists due to technological development by providing legislative and

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<sup>1</sup> - Samer Ahmed Moussa, The Principle of the Rule of Law, Human Rights Pillar, Civilized Dialogue, taken from the website:

[www.achewar.org/debat/show.art.aasp.aid-102607](http://www.achewar.org/debat/show.art.aasp.aid-102607).

<sup>2</sup> - Amin Atef Saliba, The Role of the Constitutional Judiciary in Establishing the Rule of Law, A Comparative Study, Modern Book Foundation, Lebanon, 2002, p. 75.

-See also:

-Jennifer A.winder, construire l'état de droit, édition nouveaux horizons. Paris. 2003.p119.

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regulatory answers, jurisprudence and jurisprudential theories appropriate to new calamities<sup>1</sup>.

Modern technology also opens new fields for research and legal discussion of legal concepts and principles in cooperation with groups of scientists within national and international networks and institutions with the encouragement of governments and economic actors through the inclusion of the legal base in many scientific and technical fields<sup>2</sup>.

- Due to the law's link to technology, its characteristics help to refer to experts and involve them in its development, interpretation and application, and it has also produced clear specializations within the scope of judicial professions, jurisprudential work and university teaching, and prompted the two lawyers and other interested parties to cooperate naturally with new specialists who have become a kind of influence that is not easy to overlook, so that the ability of the law to adapt to technological developments has become clearly vital.

Scientists and technologists find in this situation the possibility of collaborating and communicating with jurists who are able to link with them and simplify the difficulties of expression, theorization, drafting and processing in general. The positive impact of this on the practice of judicial expertise and its consequences on court decisions is well known, and here the authority of experts to impose their opinion and accept it automatically by the legislator and the judge emerges.

Artificial intelligence today has certainly contributed to the development of judicial systems, but its use has raised many challenges in terms of its suitability for the prevailing legislation, as the question that arises in this context lies in the following: Are jurists really prepared to use this new technology to serve digital justice, for example? Are laws and legislations sufficient to address the expected risks that may result from the use of artificial intelligence in a way that guarantees the principle of the supremacy and rule of law and the concealment of rights and freedoms?

Most developed countries today are resorting to issuing legislation on artificial intelligence and developing a legal framework for the use of its applications to come in line with the public interest and compatible with the provisions of the law in order to achieve respect for the principle of the

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<sup>1</sup> - A new online course on artificial intelligence and the rule of law organized by UNESCO and the Future Society with the support of cetic.brinc.br, the National Judicial College and IEEEESA.

<sup>2</sup> - Online training course in collaboration with UNESCO/ICC and IEEE Centre on Artificial Intelligence and the Rule of Law.

supremacy and rule of law, and it is also working on developing curricula and programs in universities in order to prepare future lawyers to use artificial intelligence and qualify human cadres in the field of legal professions and judicial systems to enable them to deal with modern and smart technologies<sup>1</sup>.

There is no doubt that in the near future, artificial intelligence will replace human cadres in some services such as legal consultants and researchers, and thus this digital development will give a modern concept of justice as it will reduce the effort made by lawyers to accomplish routine work and provide them with more time to devote themselves to more important cases and work, which increases their productive capacity.

For example, in the field of criminal justice, AI systems are already being used to provide investigative assistance and automate decision-making processes in many judicial systems around the world.

It is worth noting that there are many new educational courses on the Internet that have become centered on artificial intelligence and the principle of the rule of law, as these huge open courses on the Internet constitute introductory courses that involve jurists in many global discussions about artificial intelligence and its impact on the principle of the rule of law, which has become available many opportunities in the increasing adoption of artificial intelligence technologies through justice systems and the impact of the latter on the administration of justice, especially With regard to human rights and ethics in the field of artificial intelligence and governance issues.

With the progress made in the use of artificial intelligence technologies, today judicial systems are involved in legal issues related to the impact of artificial intelligence on human rights and its exercise of control in the event of violations against them, in addition to that, judicial systems are using artificial intelligence in judicial decision-making processes related to accountability and transparency<sup>2</sup>.

Based on the above, artificial intelligence will certainly contribute to strengthening the principle of the rule of law through the attention that countries have paid to artificial intelligence techniques using and developing

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<sup>1</sup> - Irfan Mohamed Al-Khatib, Artificial Intelligence and the Law, A Comparative Study in the Tunisian and Qatari Civil Legislation of 2017, and the European Industrial Policy for Artificial Intelligence, research published for the journal:

BAU.Journal -JOURNAL OF LEGAL STUDIES6 VOLUME 2020,article 4, p 56.

<http://digitalcommons.bon.edu.lp/lsjournaluol2020/iss2020/4>

<sup>2</sup> - Hania Hosni, Artificial Intelligence and its Applications, research published in the Journal of Human and Society Sciences, Volume 10, Issue 40, 2021, p. 30.

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systems based on these technologies, aiming to achieve the maximum possible benefit from them as future technology.

### **Conclusion:**

In conclusion, we can say that artificial intelligence technologies have become one of the most important necessities of the times, as their integration into society has become an urgent necessity as they facilitate many things related to daily human life and help accomplish many tasks that are difficult for humans to perform with higher efficiency than human efficiency.

Artificial intelligence today has become the talk of the world as one of the most prominent electronic systems that sweep human life, as it is a branch of computer science concerned with how machines simulate human behavior, as it is a science based on the creation of computer devices and programs capable of thinking in the same way that the human brain works. Through artificial intelligence, computer programs can be created and designed that simulate the style of human intelligence so that the latter, in turn, can perform some tasks instead of humans, which require thinking, understanding, hearing, speaking and movement in a logical and organized manner.

- The applications and uses of artificial intelligence vary as an attempt to simulate human intelligence in many areas, and perhaps the most prominent of these areas is the field of law, as it contributes to strengthening the principle of the supremacy and sovereignty of the law, especially since the activation of the latter in judicial systems has become an urgent matter imposed by the need and this reduction procedures, time, effort and expenses, it generally achieves advantages for all parties to the legislative, legal and judicial process as it is complementary to the humanitarian effort that aims to achieve justice and equality among members of society and make The judicial process is more sober, which contributes to building a state of right and law as it is the official sponsor and main protector of the rights and freedoms of persons, which ultimately achieves a just state that seeks to achieve stability, consensus and balance between individuals and the ruling authority, considering that justice and fairness is the backbone of the state of law as it invokes the rules of law by legal means.

With the progress of interest in resorting to the use of artificial intelligence technologies in the legal sector, we decided to propose some of the following recommendations as follows:

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- 1- The need to pay attention to legal issues related to the consequences of using artificial intelligence techniques.
- 2- The need to develop a roadmap and timetable for the development of legislation governing the use of artificial intelligence, not just legislation to allow its use.
- 3- The need to work on the preparation of a detailed legislative infrastructure that suggests the need to prepare legal experts in this field capable of understanding a rapidly evolving society.
- 4- The need to study the issuance of a law regulating artificial intelligence and specializing in clarifying the provisions of legal responsibility arising from doing business related to the use of artificial intelligence techniques.
- 5- The need to consider the requirements for reconfiguring the database and information of the Public Prosecution to be compatible with the requirements of benefiting from artificial intelligence techniques in its work.
- 6- Continue to hold training programs for the various parties of the legal and judicial system in order to learn about the latest successful international experiences of artificial intelligence applications to achieve more understanding and understanding of the mechanism of work of these modern technologies, which opens the way for absorbing and adapting existing legal rules or enacting special legislation that suits the nature of these technologies.
- 7- Calling for the adoption of the guide on the ethics of artificial intelligence, which includes the general frameworks and rules governing the work of artificial intelligence applications.
- 8- Encouraging national research in the field of determining criminal and civil liability for the uses of artificial intelligence, which reduces the incidence of crimes committed through these technologies.
- 10- The need to regulate the standards for the ethical use of artificial intelligence techniques at the international level in order to ensure that artificial intelligence applications do not deviate from the frameworks and rules that must be observed.

### **Marginalization and referral**

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- 3- Souad Boubha, Artificial Intelligence, its Applications and Repercussions, Journal of Financial and Business Economics, Abdelhafid Boussouf University Center, Volume 6, Issue 4, December 2022.
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16- Hania Hosni, Artificial Intelligence and its Applications, research published in the Journal of Human and Society Sciences, Volume 10, Issue 40, 2021.

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