

The Use of Artificial Intelligence in International Law: Between Mechanisms and Challenges

استخدام الذكاء الاصطناعي في القانون الدولي: بين الآليات والتحديات

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المخلص:

غيرت الثورة التكنولوجية المشهد الفكري للعالم، وجعلت نقل المعلومات سريعاً، وإذا كانت الثورة الصناعية في القرن التاسع عشر قد أحدثت فرقاً تاريخياً كبيراً، فإنه يبدو ضئيلاً مقارنةً بإنجازات الثورة الصناعية الرابعة، أو ما يُعرف بالثورة الرقمية، حيث أثبتت تقنيات الذكاء الاصطناعي نجاحاً باهراً في العديد من المجالات، بما في ذلك القانون الدولي، وتضاعفت استخدامات تقنيات الذكاء الاصطناعي في مجالات مختلفة، إلا أنها في الوقت ذاته تواجه تحديات ومخاطر أخلاقية وقانونية عديدة، وفقاً لذلك تهدف هذه الدراسة إلى تسليط الضوء على آليات وتحديات استخدام الذكاء الاصطناعي، مع إبراز أهم جهود القانون الدولي لمواجهة هذه التحديات والاستفادة من المكاسب الكبيرة التي يوفرها، لذلك، تم تقسيم هذه الدراسة إلى ثلاثة أقسام، يتناول القسم الأول طبيعة الذكاء الاصطناعي وأنواعه، في حين تضمن القسم الثاني آليات استخدام الذكاء الاصطناعي في القانون الدولي، أما القسم الثالث والأخير يستعرض التحديات التي تعترض استخدام الذكاء الاصطناعي في القانون الدولي والجهود القانونية لمواجهة هذه التحديات.

الكلمات المفتاحية: الذكاء الاصطناعي، المجتمع الدولي، القانون الدولي، الثورة الرقمية، التكنولوجيا الحديثة.

Abstract:

The technological revolution has changed the intellectual landscape of the world, making the transfer of information rapid, while the Industrial Revolution of the nineteenth century made a significant difference in history, this difference may seem small compared to the achievements of the Fourth Industrial Revolution, or what is known as the digital revolution, Artificial intelligence AI have proven highly successful in many fields, including international law, but at the same time, it has begun to face numerous ethical and legal challenges and risks, this study aims to shed light on the mechanisms and challenges for using AI, while highlighting the most important efforts of international law to address these challenges and benefit from the significant gains that AI offers, Therefore, we have divided the study into three sections, the first section addresses the nature of AI and its types, the second section addresses the mechanisms for using AI in international law, the third and final section addresses the challenges of using AI and the efforts of international law to address these challenges.

KEY WORDS: Artificial Intelligence, International Community, International Law, Digital Revolution, Modern Technology.

Introduction:

The world is witnessing astonishing progress in various fields of knowledge, a large part of which is linked to technological advancements that cast a shadow over global interaction and the balance of power within the international community. This technological progress is characterized by its astonishing speed and unprecedented ability to develop in a short period of time. This era has been dubbed the Fourth Industrial Revolution, or the Digital Revolution. This era differs radically in its purpose and degree of complexity from past industrial revolutions, as it features a range of modern technologies that integrate the physical, digital, and biological worlds. It is also intertwined with numerous disciplines and economies, challenging the idea of total reliance on human thought and the shift toward machine-based learning.

Artificial intelligence (AI) is one of the most important technological achievements of this digital revolution, experiencing tremendous growth and creating innovative and diverse applications in numerous sectors, such as health, education, trade, security, transportation, culture, the environment, and others. Therefore, AI has become a factor in a nation's strength, in addition to its political, military, economic, and cultural power. Mastering AI technologies now means controlling the world through a group of intelligent robots, computer programs, and advanced applications.

Artificial intelligence (AI) is the primary source of development and innovation and a means of accelerating technological development. However, at the same time, it raises many problems that portend ethical, social, and legal consequences and challenges related largely to governance and globalization. Among the most important of these challenges is AI's violation of many ethical principles in the international community, most of which relate to human rights. It can also cause economic, political, and social instability. One of the most significant changes resulting from the expanded use of AI is its replacement of humans in many fields, performing a large number of tasks with greater precision and in less time. Therefore, it will be easy to dispense with humans and replace them with more efficient devices, which will lead to higher unemployment rates and the inability of countries to fulfill their international obligations. Therefore, speculation and expectations indicate that the increased use of AI may result in numerous conflicts, whether directly or indirectly. More seriously, AI may result in disruptions in relations between countries and a shift in the balance of power, especially among countries involved in the race for leadership in the field of AI.

Artificial intelligence (AI) has been developing rapidly over a short period of time, becoming used in numerous political, economic, social, and legal fields. International law has had a share of AI development, as it can be used to promote equality and justice, prevent international violations, and even predict them before they occur. However, its use has faced a number of challenges. Therefore, the current study seeks to answer the following main question: **To what extent can artificial intelligence technologies enhance the effectiveness and fairness of international legal processes, and what regulatory frameworks are needed to address associated challenges?**

From this main question, a number of sub-questions arise:

- What is AI? What are its levels?
- What are the mechanisms for using AI in international law?
- What are the most significant challenges facing the application of AI technology in international law?
- What are the most prominent efforts made by international law to address the challenges of AI technology?

This research aims to verify the hypothesis that “Artificial intelligence has the potential to significantly improve the efficiency and consistency of international legal systems, but without the development of binding legal frameworks, its implementation may deepen existing inequalities and pose threats to due process and accountability”.

The current study seeks to achieve the following objectives:

- To identify the nature of artificial intelligence and its levels.
- To identify the most important mechanisms for using artificial intelligence technologies in international law.
- To identify the most important challenges facing the use of artificial intelligence technologies in international law.
- To highlight the most important efforts of international law in addressing the challenges of using artificial intelligence technologies.

In order to investigate the function and efficacy of artificial intelligence (AI) technologies in international law, this study takes a descriptive-analytical method. Presenting important ideas about artificial intelligence (AI), its levels, and its application methods within the context of international law is the descriptive dimension. Evaluating the main operational, ethical, and legal issues raised by the incorporation of AI into global legal frameworks and systems is the main objective of the analytical dimension.

Furthermore, when needed, the study uses a comparative method to look at how different jurisdictions have adopted and regulated AI to differing degrees.

International legal instruments, official reports, resolutions, legal opinions, and scholarly papers are just a few of the primary and secondary sources that the research uses to support the analysis. In order to demonstrate the practical implications, case-based examples from real or planned applications of AI in international legal contexts—such as international tribunals, humanitarian operations, and cyber law enforcement—are included when appropriate.

The objective is to assess how resilient and flexible international law is in the face of AI-driven technological disruption, paying special emphasis to the defense of global justice, human rights, and sovereignty.

1. What is Artificial Intelligence?

1.1- Definition of Artificial Intelligence:

The definition of artificial intelligence is a constantly evolving and dynamic battle that

is constantly being updated through the ongoing progress and development of this field. Despite the importance of the term AI currently being popular as a very general concept that covers a wide range of different technologies, the field of artificial intelligence, which has spanned more than 60 years, is a vast field, more complex, and richer than most fields of science and technology¹.

Since the future represents a mixture of a sense of danger and sadness toward the unknown in the human imagination, and despite the great need for more knowledge about the values, beliefs, and theories that have emerged around the history of human thought and the human condition, no field will remain immune to the rapid progress of artificial intelligence and artificial beings, which will continue to contemplate the unknown future of robots².

The international community is currently in the midst of the Fourth Industrial Revolution, which was preceded by three phases that can be identified as follows:

- The first: This occurred in the twelfth century and continued until the nineteenth century, and witnessed the transformation from an agricultural society to an industrial society driven by steam and water.
- The second: The Industrial Revolution was characterized by newly discovered forms of energy, such as electricity, oil, and steel, which became the foundations upon which the invention of the telephone developed.
- The third: The Internet, which enables people to access the world's knowledge without having to leave their desks³.

Although the concept of artificial intelligence as a technical term date back to the 1950s⁴, with the first appearance of the term "artificial intelligence" in 1955 at a conference held at Dartmouth College⁵, we find it difficult to define what artificial intelligence is for two reasons: there is little agreement on what artificial intelligence is, and there is little reason to believe that artificial intelligence has much to do with human intelligence at least. Although there are many proposed definitions of artificial intelligence (AI), each with its own bias, most of them roughly align around the concept of creating programs or computers capable of behavior that can be considered intelligent⁶.

We conclude from this that it is difficult to define the concept of artificial intelligence, because the field itself is vast, and many different definitions have been offered, including:

- It is "a computational tool created through human intervention that thinks or behaves like humans or how humans are expected to think or behave"⁷.
- It is "the field of science and technological innovation aimed at creating machines, artificial agents, and more complex systems that mimic cognitive functions such as evaluating, learning, and problem-solving, which humans may associate with their own means"⁸.
- The Oxford Dictionary defines it as "the theory and development of computer systems capable of performing tasks that normally require human intelligence"⁹.

- It is "the activity of making machines intelligent; intelligence means the quality that enables an entity to act appropriately and wisely by considering the consequences of its environment"¹⁰.
- It is "the construction of computer programs dedicated to accomplishing tasks hitherto satisfactorily performed by humans because they require higher-level mental processes such as perceptual learning, memory organization, and critical thinking. It aims to improve the cognitive and mental processes in machines so that they are capable of thinking, perceiving, and making decisions"¹¹.
- It is "a general-purpose technology aimed at automating and improving the accuracy, speed, and/or scope of machine decision-making, pattern recognition, and prediction in complex or large environments, with the goal of replacing human capabilities or improving human performance in specific tasks"¹².

Based on the previous definitions, artificial intelligence can be defined as the process that seeks to simulate human reasoning abilities, which aids in identifying and solving problems, as well as capabilities related to environmental analysis, risk analysis, prediction, and other cognitive and perceptual abilities. This helps provide significant opportunities to enhance decision-making processes, particularly with regard to public policy, and to advance societies by working towards common goals.

1.2. Levels of Artificial Intelligence:

To discuss artificial intelligence, we must differentiate between several levels. Each level differs from the other in terms of the degree of technology used and the degree of human control over the required processes.

- **In terms of the degree of technology used:** there are three levels. The first level may be limited to a specific type of process, where automation performs a portion of the required process before human intervention to complete the process. The second level includes a greater degree of supervision, but it remains under the supervision of humans, who can intervene at their discretion to prevent any transgression or deviation from the intended goal. The third level, which is the most dangerous and may entail the greatest liability in the event of damage, is based on processes completely independent of the human element. The systems allow complete control without any human intervention at any stage¹³.
- **In terms of the degree of human intervention:** it is divided into three forms: The first form is where the robot selects the target and leaves the decision to intervene and use force to the human element. This represents the majority of military robots deployed and currently in use¹⁴. The second form is where the robot identifies the target and makes the decision to use force, but the human element can intervene and stop it. Here, human intervention may save the situation based on the information and authority it has, in addition to its supervision of the decision-making process and its implementation. The third form is the most dangerous of all, and is what will happen in the future, which is where the robot selects the target and uses force without any human intervention in any way, shape or form¹⁵.

2. Mechanisms for using artificial intelligence technology in international law

Artificial intelligence technology has numerous uses in international law. It is a powerful tool for analyzing big data and information. It also opens the door to international arbitration, monitoring the implementation of international agreements and treaties, and facilitating access to legal texts. Below, we review the most important uses of artificial intelligence technology in international law:

2.1. Supporting decision-making within international courts:

Decision-making in international courts is a highly complex process, requiring in-depth study of the legal text, as well as analysis of evidence and review of relevant case law. With technological advancements, artificial intelligence has gradually become an important supporter of this process through¹⁶:

- **Case law analysis:** International courts utilize artificial intelligence systems capable of quickly and accurately analyzing thousands of previous court rulings. They use machine learning algorithms to extract legal patterns, similarities between cases, and identify prevailing trends in rulings, helping judges make consistent, precedent-based decisions.
- **Document and evidence analysis:** Case files in major international cases often contain numerous digital documents. Using artificial intelligence technology, these documents can be examined, categorized, and identified as directly relevant to the facts of the case before them, saving judges and legal advisors time and effort.
- **Assessing the credibility of documents and evidence submitted:** AI technologies can be used to verify the credibility of documents and evidence submitted, especially if the evidence contains images or videos. This can detect any falsification or alterations. This is particularly important in international criminal cases.
- **Assists in accurate translation:** In international trials, litigants speak multiple languages, and AI can assist in the immediate and accurate translation of legal texts, taking into account the different legal contexts. This helps reduce errors caused by human translation.
- **Supports proactive decision-making:** Some AI systems can provide models to predict decisions based on the legal and historical information provided to them. This enables them to develop a preliminary understanding of the outcome of the case based on this information and legal criteria, with the final decision remaining in the hands of the judge. This does not mean that AI can replace judges, but rather that it can support them with information and analysis.

2.2. Monitoring Compliance with International Treaties and Agreements Using Artificial Intelligence:

Ensuring states' compliance with international treaties and agreements represents one of the major challenges facing international law, given the absence of a central authority to oversee actual implementation. This highlights the importance of AI as an effective tool in

strengthening international oversight mechanisms, whether environmental, security, or humanitarian. AI's contributions to this role are evident in the following points¹⁷:

- **Analyzing satellite imagery to identify violations:** AI can be used in conjunction with satellites to monitor and interpret any changes, whether geographically or climatically, such as deforestation, nuclear activities, or military movements that violate international treaties and agreements.
- **Monitoring environmental commitments in climate agreements:** AI can be used to track carbon emissions and monitor environmental pollution levels by integrating data from ground and space sensors, contributing to verifying states' compliance with the Paris Climate Agreement and other environmental agreements.
- **Monitoring illicit commercial and military activity:** AI can be used to analyze data related to international trade, such as ship movements and arms shipments, to identify illicit or suspicious activities. This helps relevant organizations, such as the Security Council or the Organization for the Prohibition of nuclear weapons, apprehend and punish perpetrators.
- **Supporting international investigative mechanisms:** AI provides the ability to process vast amounts of information, data, and digital evidence to support international commissions tasked with investigating human rights violations or war crimes.
- **Improving transparency:** AI increases transparency by providing numerous analytical tools that enable non-governmental bodies to verify states' commitments.

2.3. Collecting and Analyzing Digital Evidence:

With the increasing number of highly complex international crimes and increased reliance on digital media, collecting and analyzing digital evidence has become one of the biggest challenges facing international courts and judicial bodies. Through the use of artificial intelligence technologies, it is possible to examine digital evidence and determine its credibility and legal efficacy. In this context, AI can be used to¹⁸:

- **Discover and identify sources of digital evidence:** AI algorithms are used to search the internet, social media, and digital maps to identify images, videos, or documents that may constitute evidence of an international crime. These algorithms may also help link digital evidence to the time and place of the crime.
- **Presenting Legal Evidence:** AI technologies can be used to create reports compiling digital legal evidence for presentation before international courts, taking into account chains of custody and court procedural requirements.
- **Verifying the Authenticity of Evidence:** One of the biggest challenges facing international courts is the presentation of forged evidence as genuine. This is where AI technologies come in to uncover any forgery in such evidence by analyzing images and videos and verifying their authenticity.
- **Data organization:** International cases contain thousands of digital files, including documents, photos, emails, audio clips, videos, and more. One of the

most prominent features of artificial intelligence is its ability to quickly sort and organize this data according to subject, date, stakeholders, and level of legal importance, saving significant time and effort.

- **Pattern analysis to access legal evidence:** Artificial intelligence can identify recurring patterns that indicate the commission of systematic crimes such as ethnic cleansing or systematic torture by analyzing a series of digital evidence and linking them together. This helps prove the existence of a systematic policy, a key element in crimes against humanity cases.

Artificial intelligence has had a growing impact on the processes and effectiveness of international dispute resolution in recent years, especially in the fields of trade law and international commercial arbitration. In order to facilitate communication between multilingual parties and speed up procedural timeframes, the International Chamber of Commerce (ICC), for example, has used AI-powered solutions for real-time translation and document management during arbitration hearings. But the incorporation of these technologies has brought up significant legal issues, especially with regard to cybersecurity, the privacy of private records, and the legal responsibility for mistakes made by AI¹⁹.

In a similar vein, artificial intelligence (AI) has revolutionized international trade and dispute resolution under the framework of the World Trade Organization (WTO). AI is used to streamline tariff processing, maximize supply chain transparency, and enhance adherence to international trade agreements, according to the World Trade Organization's report "Trading with Intelligence." Additionally, King's College London used artificial neural networks (ANNs) to evaluate the WTO's dispute settlement system's efficacy. ANNs provide a data-driven method for detecting procedural inefficiencies and forecasting case outcomes. Adoption of AI requires strong legal frameworks to handle the dangers of unequal access, data sovereignty, and the harmonization of AI governance across jurisdictions, even while AI helps to improve the speed and accuracy of dispute resolution in both venues²⁰.

2.4. Predicting Conflicts and Assessing Legal Risks:

Given the complexity and interconnectedness of international relations, international bodies and actors in international law must have tools to help them monitor indicators of potential conflicts before a crisis escalates. This is where artificial intelligence (AI) becomes important. It can be used as a means of analyzing data, predicting potential conflicts, and assessing any associated legal risks. This can be explained as follows²¹:

- **Predicting International Conflicts:** Some AI systems rely on analyzing economic, political, and social data from multiple sources, such as news reports, official statements, economic indicators, and satellite data, to identify early indicators of conflict.
- **Assessing Legal Risks:** AI can assess the likelihood of international violations of legal rules by analyzing signed international agreements and treaties, past compliance records, and assessing the ambiguity of these agreements. It can also analyze international positions on sensitive issues such as human rights, sovereignty, and security.

- **Integration with political and legal decision-making tools:** AI can be integrated with interactive dashboards for use by decision-makers at the United Nations or regional organizations to provide visual analysis and heat maps of areas prone to conflict or legal violations.
- **Use in international humanitarian law:** AI can alert to potential violations of international humanitarian law, such as the use of prohibited weapons or the targeting of civilians, enabling international monitors to take early action to document such violations or pressure them to prevent them.

3. Challenges of Artificial Intelligence in international law and Strategies to Address Them

3.1. Challenges of using artificial intelligence technology in international law:

International law based on the use of artificial intelligence in international law faces numerous challenges, including legal, technical, and ethical challenges. These challenges can be summarized in the following points:

- **The absence of a clear international legal framework to regulate artificial intelligence:** There is still no comprehensive international agreement regulating the use of artificial intelligence, especially in areas such as defense and international criminal justice. Despite the existence of some initiatives, agreements, and guidance documents, such as the UNESCO Recommendation on the Ethics of Artificial Intelligence of 2021, most existing legislation is national or regional, such as the European Union Law on Artificial Intelligence, but it is not applied globally. The absence of a clear and unified legal framework leads to disparities in standards between countries, which opens the door to legal misuse by companies or countries²².
- **Difficulty in determining legal liability for actions resulting from artificial intelligence:** It is difficult to determine who is responsible for violations or damages resulting from decisions made by artificial intelligence. As a non-human system, artificial intelligence lacks legal personality. Therefore, it cannot be held accountable before any judicial body, whether international or national. This raises questions about who bears this responsibility: the state using it? The manufacturer? The programmer? The end user?²³ Further complicating matters is the complex technical nature of artificial intelligence, whose decisions are made within what is known as a "black box," meaning that the logic or reasons behind the decisions cannot be traced. Furthermore, the multiplicity of parties involved in the design, operation, and activation of artificial intelligence mechanisms makes it difficult to draw a clear causal line through which to directly identify the responsible party. Furthermore, some countries may exploit this ambiguity to evade international liability, claiming that the actions were not the result of human will but rather a technical error²⁴.
- **Violation of privacy and human rights:** The use of artificial intelligence to collect and analyze data on a large scale raises profound issues related to the

violation of privacy and human rights, especially in the absence of unified international legal frameworks that guarantee respect for these rights. Artificial intelligence systems are used to monitor and analyze people's behavior without obtaining their consent or providing transparent mechanisms. This violation is clearly evident in facial recognition systems used in public spaces without citizens' knowledge, which contradicts the right to privacy stipulated in Article 17 of the International Covenant on Civil and Political Rights. Some algorithms also lead to biased decisions against certain groups, violating the principles of equality and non-discrimination, which constitutes a direct violation of human rights in a digital environment that does not respect human dignity²⁵.

- **Algorithmic biases:** Algorithmic biases are among the most significant ethical and legal challenges facing AI applications, as they can lead to unfair outcomes that directly impact individuals' lives. Algorithmic outcomes depend heavily on the quality and balance of training data, making them vulnerable to perpetuating pre-existing discriminatory patterns in society. This bias violates the principles of justice and equality enshrined in international human rights conventions²⁶.
- **Destabilizing politics, societies, and economies:** Intelligent automation could lead to increased unemployment rates, intensified inequality, and increased concentration of power in the hands of high-tech billionaires. If the underlying algorithms are not explainable and transparent, the automation of governance using machine learning systems could ultimately lead to deepening discrimination, obscuring accountability, and violating human rights²⁷.

3.2. International law efforts to address the challenges of artificial intelligence:

The implementation of existing and emerging regulations, considering shifting technological realities, economic changes, and societal norms, reflects the core of a dynamic international legal system's capacity to adapt with a definitive overarching vision. Despite treaties governing state conduct, the core tenets of international law, including sovereign equality and territorial sovereignty, persist in relevance while simultaneously facing challenges from developments such as cloud computing, online anonymity, and the complexities of enforcing laws related to physical phenomena in cyberspace²⁸. Nevertheless, the international community and states have yet to achieve a consensus on the sufficiency of existing international law to regulate the network of artificial intelligence systems²⁹.

International law is only just beginning to develop ideas about how to regulate and constrain non-human behavior that violates fundamental legal rules, obligations, and norms. In order to determine whether and how AI thinks, we must become experts in the potential of our own cognitive capabilities. The capacity of international law to address these issues is severely constrained. Specifically, the consensual form of international law imposes several structural limits on the application of international law to new technology. It is crucial to keep in mind that the interest or worry that international law has for regulatory technologies are not based on their intrinsic characteristics, forms, advancements, or even applications³⁰.

States have always had limited authority to exert sovereignty over their borders, and they now do so with relation to physical internet footprints, such cloud computing servers, that are located within their borders. Within the borders of each state and jurisdiction, they enforce their laws on human behavior on the internet, whether it be active or passive³¹.

Artificial intelligence not only brings good things; it also poses many threats, some of which are so powerful that some may before long affect our survival as a species. Beyond its potential to destroy humanity, AI has been criticized as a threat to our dignity and rights to privacy. Many fear that the technology will put millions of people out of work, causing untold disruptions to the way people work and live around the world³².

The Future of Life Institute also worries that AI technologies could strengthen cyber warfare, empower international criminal networks, and sabotage democratic processes with fake news, images, and videos³³. This is because there are currently no international agreements to safeguard the Internet and its essential resources or to set up institutions to manage the risks to the international community from the development and use of the Internet³⁴.

The people in charge of AI will become extremely rich. Just this wealth will give you a lot of political clout. But governments, multinational firms, and digital entrepreneurs see AI's political power as more than just its economic worth. Those who oppose their governments, such as environmental, human rights, and peace campaigners, are seriously threatened by the growing ability of authorities to impose control and repression³⁵. Therefore, AI systems must be addressed with four considerations in mind:

- The best way to guarantee the safety of items must be taken into account. Throughout their whole life cycle, products must not provide unreasonably high hazards to safety when used or misused in predictable or typical ways.
- The question of who should bear responsibility for harm caused by an AI system and to what degree needs to be taken into account.
- The selection of liability principles needs to be taken into account. These can include the function of insurance, fault-based liability, and strict liability. While the issue of liability may be made worse by the ambiguity of certain AI systems, the formal sources of international law may also present another structural barrier. All governments must abide by the fundamental ideas and regulations of customary international law, although they simply offer a framework for regulating the creation and/or application of new technology. Treaty law deals with specific duties³⁶. In the context of liability, we support what was decided by the jurist Barboza, who said: "In principle, even if fault has no role to play in the liability system, given that victims of harm are exempt from the burden of proving fault, this does not prevent fault from having a positive role in the obligations or duties of prevention as part of the due diligence obligations through which work is done to reduce risks. Accordingly, fault finds a place in regulating dangerous activities wherever the obligations of prevention must coexist with liability"³⁷. This does not refute the

avoidance of states to establish rules of prevention, given the possibility that this would lead to an obligation to repair, which is not specific, for all damage caused by activities not prohibited by international law, and the unwillingness of states to accept a text of a general nature for rules of prevention, such as those adopted by the International Law Commission in 2001³⁸.

- They have to think about the application of the law, what constitutes a "defect" in an AI product, the burden of proof, and potential remedies. Since the general principles of objective liability are derived from the work of numerous international organizations, particularly the International Law Commission, and will remain at the level of recommendations, their usefulness in public international law cannot be overlooked or undervalued, even though the establishment of a comprehensive system of objective liability appears unlikely³⁹.

National and regional authorities, international bodies, and numerous non-governmental organizations around the world have begun adopting strategies, action plans, and policy papers aimed at harnessing the potential of AI. These strategies define industrial and research strategies, data collection methods, and the framework for regulating AI. In 2017, the first international summit marked the beginning of a comprehensive global dialogue on beneficial AI in Geneva, Switzerland, at the invitation of the International Telecommunication Union, a specialized agency of the United Nations. In 2018, several UN agencies met at a highly important international summit to establish a platform for exchange between the United Nations and its various branches regarding the future AI strategy. This AI strategy focused on strategic partnerships between projects supporting accelerating progress towards sustainable development, AI innovators, and decision-making in the public and/or private sectors. Furthermore, the primary purpose of this international summit was to contribute to the formulation of global strategies to ensure reliable, safe, and inclusive development of AI technologies⁴⁰.

Since 2018, a number of regional and international mechanisms that are not under the purview of the UN have been adopted to control different facets of artificial intelligence. Internationally, the 2018 Toronto Declaration on the Protection of the Right to Equality and Non-Discrimination in Machine Learning Systems was ratified by Amnesty International. Although it is merely a declaration that is not legally binding on any state or concerned party, it outlines the importance of inclusion, diversity, and equity as essential components to ensure that machine learning systems do not create forms of discrimination against specific groups, particularly marginalized groups. At the regional level, the Council of Europe has adopted several of these legal instruments concerned with regulating the work of artificial intelligence the most significant of which is the 2018 adoption of the European Code of Ethics on the Use of Artificial Intelligence in Judicial Systems and Their Environment by the Working Group on the Quality of Justice of the Council of Europe⁴¹, in addition to several guidelines and principles adopted by the European Union. Due to the multiplicity of these guidelines and principles, a regulatory proposal was put forward by the European Parliament and the European Council to establish an Artificial Intelligence Law in 2021 to avoid the risks of

using artificial intelligence and prevent violations of fundamental rights, safety, and ethical principles.

At the domestic level, since the establishment of the United Nations Center for Artificial Intelligence and Robotics, a number of countries have adopted their own domestic policies and strategic plans to regulate the development of artificial intelligence as early as 2017. Japan, France, Germany, and the United Kingdom followed closely in 2018, and other countries such as Brazil, Hungary, Poland, and Spain have subsequently adopted a national strategy for artificial intelligence⁴².

As for Arab countries, according to the 2021 AI Governance Readiness Index, they are one of the most diverse groups in the world in terms of AI governance readiness. In fact, readiness scores range from the lowest globally to the highest⁴³. This is due to the fact that some of these countries were among the first to adopt national AI governance strategies in 2017, followed by Egypt and Tunisia in 2018, and then Qatar in 2019⁴⁴. The Gulf Cooperation Council (GCC) countries are also showing increasing interest in AI governance and their increased governance readiness⁴⁵. Arab countries are currently working to establish a joint regional strategy for AI governance in the region⁴⁶.

Conclusion:

Artificial intelligence is the new form of human civilization. If we consider that the official approach to developing AI technologies does not replace human intelligence, but rather harnesses science and nature to serve human society, then we must ensure that this is done through a humane approach based on ethical values and respect for human rights. Recently, there has been talk about AI technologies, with all the positive and negative dimensions that these technologies carry, which directly and indirectly impact individuals' rights and fundamental freedoms. Therefore, we face undeniable legal problems. Despite the importance of AI technologies and their development, they must be regulated, codified, and governed based on the principles of international law and international humanitarian law, which must be part of national and international regulatory policies. The way to achieve this is for the international community to unify guidelines for regulating AI technologies, if necessary. These guidelines should include technical committees comprising independent experts, scientists, and representatives of companies and institutions concerned with AI. Manufacturers and innovators are also responsible for taking into account the social and security implications of their technologies, ensuring that new technologies contribute to creating a safe and stable society for all, far from any disruption to international peace and security.

The lack of a comprehensive definition of AI systems and technologies is due to the diversity of fields, such as computer science, philosophy, mathematics, psychology, cognitive science, and many other disciplines. Consequently, all these perspectives describe AI in different ways. Furthermore, given the rapid pace and abundance of information flowing through AI technology, it is difficult, if not impossible, to encompass all aspects of these technologies. This has led to the inability to reach an international legal agreement to address AI technologies.

Although AI has many uses in international law, and can be relied upon to analyze massive digital data and information, examine digital evidence, verify its authenticity, organize it, and relate it to relevant matters in the case at hand while excluding those that do not, detect fake images and videos, and other features that can be exploited to save a lot of time and effort, the difficulty facing the international community in dealing with AI technology lies in reconciling two considerations: trying to benefit from the most important advantages of these systems, their applications, and their fields, and working to avoid their risks and threats and eliminate their harms, especially since all the principles adopted by the international community regarding AI systems come within the context of ethical principles or regulatory principles that are not linked to penalties, and adherence to them is voluntary, not binding legal principles, and violating them requires bearing responsibility with the consequences that entail, most notably compensation for those affected.

A number of concrete actions are suggested in order to minimize the hazards associated with artificial intelligence while also maximizing its advantages in international law. First, to ensure clarity on accountability, liability, and due process, international legal organizations like the United Nations and the International Court of Justice should create legally binding structures especially suited to AI governance. Second, to ensure inclusion and justice in the ethical use of AI in international legal situations, a multi-stakeholder task group of legal experts, technologists, ethicists, and representatives from developing nations should be formed. Third, in order to educate judges and attorneys on the implications of future AI technology, international organizations need to fund capacity-building initiatives. In order to protect procedural integrity and human rights, it is also critical to implement AI impact evaluations prior to incorporating AI tools into legal decision-making processes. Last but not least, encouraging open-access knowledge-sharing platforms and cross-border collaboration on AI regulation can aid in the development of a unified and flexible international legal framework that strikes a balance between innovation and regulatory accountability.

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