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# Directing Artificial Intelligence To Global Governance: Evolution Of International Legal Regulation

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## Abstract

*This study analyzes the evolution of international legal regulation of artificial intelligence and its role in global governance formation. Using systematic literature review, comparative legal analysis, and documentary analysis methods, the research examines key international instruments, including OECD AI Principles, UNESCO's Recommendation on AI Ethics, the EU's Artificial Intelligence Act, and the Council of Europe's Framework Convention. The study identifies a risk-based regulatory approach as the emerging paradigm and reveals the sovereignty-internationalism paradox—the tension between state control and cross-border cooperation necessities. Results demonstrate significant diversity in regional models: the EU's comprehensive supranational regulation, the US's sectoral approach, and China's centralized state control. The research emphasizes the fundamental importance of human rights principles and proposes establishing new institutional mechanisms, potentially an international AI agency, to ensure effective global governance balancing technological innovation with fundamental rights protection.*

Keywords: Artificial intelligence, international legal regulation, global governance, risk-based approach, digital sovereignty, algorithmic constitutionalism, human rights, international cooperation, AI ethics, sovereignty-internationalism paradox.



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## 1. Introduction

The exponential development of artificial intelligence technologies, as one of the most important technological revolutions of the 21st century, has the potential to fundamentally transform human society. The rapid development and deployment of artificial intelligence is posing significant regulatory challenges for societies, as while it may bring many benefits, commercial exploitation or unknown technological risks are prompting many jurisdictions to seek a legal response before measurable harm occurs [2]. The impact of artificial intelligence systems ranges widely, from individual credit ratings to autonomous weapon systems, and from healthcare diagnostics to social control mechanisms. Although artificial intelligence development is concentrated in a few corporations in the US, China, and Europe, the long-term consequences of artificial intelligence deployment will be global. Autonomous weapons will have consequences for armed conflicts and the balance of power, automation will lead to changes in labor markets and global supply chains, and generative artificial intelligence will impact content production and challenge copyright systems.

An important feature of artificial intelligence technologies is that they know no geographical boundaries and are global in nature. Like other digital

technologies, artificial intelligence knows no geographical boundaries and impacts people's lives and the structure of societies worldwide in fundamental ways. The impact of artificial intelligence can range from individual credit scores or social media feeds to weapons development and shaping the global information environment. As artificial intelligence programs create externalities beyond borders and require international cooperation, and because artificial intelligence development is carried out through transnational processes requiring cross-border regulation, there is a growth in global regulatory initiatives [11]. This situation indicates the inadequacy of national regulation and the necessity for international coordination.

Currently, the international architecture of artificial intelligence governance is in the process of formation, comprising a relatively diverse and varied range of state and private initiatives. While 170 initiatives in the field of artificial intelligence were launched by national bodies from 2015 to 2022, 210 initiatives were implemented by international organizations during the same period. This statistic demonstrates the growing role of international organizations in global artificial intelligence governance. The AI Governance Day report published by the International Telecommunication Union in 2024 lists 14 national and 29 multilateral efforts, confirming the rapid growth of global interest in artificial intelligence governance [30].

However, significant structural problems exist in the current state of artificial intelligence governance. The rapid pace of artificial intelligence development has created a governance paradox: how can states ensure sovereignty over artificial intelligence systems while managing a globally interconnected ecosystem that requires cross-border cooperation? This paradox, termed the sovereignty-internationalism paradox, signifies the simultaneous and often contradictory need for states to maintain authority over artificial intelligence systems while engaging in global cooperation to address issues beyond their borders [19]. While classical theories of sovereignty emphasize absolute territorial control, modern debates on digital sovereignty highlight the adaptation of regulation in the context of technological interdependence [20].

The main objective of this study is to provide a comprehensive analysis of the evolution of international legal regulatory mechanisms in directing artificial intelligence towards global governance, to deeply explore the role of key international instruments and organizations, to compare the approaches of different states and regions to regulating artificial intelligence, and to examine the tensions between sovereignty and international cooperation. The research aims to analyze the current state of artificial intelligence governance both empirically and normatively, to identify prospective directions for global governance, and to develop practical recommendations to address contemporary challenges.

## 2. Methods

This study was conducted based on a multi-faceted and comprehensive methodological approach to exploring the global governance of artificial intelligence. The research design encompasses two broad perspectives: an empirical approach aimed at mapping and explaining global artificial intelligence governance, and a normative approach aimed at developing and applying norms and principles of artificial intelligence governance [1]. This dual methodological framework gives the research both descriptive and prescriptive characteristics, allowing for an analysis of the current situation and the identification of future directions.

The systematic literature review method was used during the research process. This method involved a comprehensive analysis of key academic articles, monographs, official documents of international organizations, and legal acts published between 2019 and 2025. Specifically, articles published in journals from Oxford Academic, Cambridge University Press, Nature, Springer, Brill, and other prestigious academic publishers were systematically reviewed. In the selection of literature, academic quality, methodological rigor, and source-based evidence were used as important criteria. More than 20 high-quality academic sources were deeply analyzed during the study.

The comparative legal analysis method was used to compare artificial intelligence regulation approaches adopted by various jurisdictions. This method allowed for identifying similarities and differences in the artificial intelligence policies, legislative frameworks, and governance models of the European Union, the United States, China, and other key states. During the analysis process, the main principles, institutional structures, and implementation mechanisms of each jurisdiction's approach to artificial intelligence were examined. The study included a comparative analysis of the European

Union's AI Act and China's Social Credit System, which allowed for clearly highlighting the differences between two main models—a risk-based supranational approach and centralized state control.

The documentary analysis method was applied to study international legal instruments and regulatory frameworks. In this process, the following key documents were deeply analyzed: The Organization for Economic Co-operation and Development's AI Principles (2019, updated in 2024) [24], UNESCO's Recommendation on the Ethics of Artificial Intelligence (2021) [25], the European Union's Artificial Intelligence Act (2024) [26], the Council of Europe's Framework Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law (2024) [27], the Final Report of the United Nations Secretary-General's High-level Advisory Body on Artificial Intelligence (2024) [28], and the UN System White Paper on AI Governance (2024) [29]. Each document was analyzed in terms of its content, adoption context, institutional mechanisms, and implementation pathways.

The institutional analysis method was used to study the role of international organizations, state bodies, the private sector, and civil society in global artificial intelligence governance. Artificial intelligence development is a cross-border process carried out by cross-border actors, especially multinational firms. Large technology corporations such as Google, Meta, or the Chinese drone manufacturer DJI are investing heavily in artificial intelligence development. Therefore, institutional analysis is of great importance for understanding the complex interaction between state and non-state actors.

For the theoretical basis of the research, it is necessary to take seriously the question of how artificial intelligence, including machine learning and automated decision-making, might affect international law and the decisions made within it. This research analyzes mundane processes and practices associated with artificial intelligence in its current form, meaning machine autonomy and technological singularity are not part of the research [7]. Within the theoretical framework, modern concepts such as digital constitutionalism, algorithmic governance, and digital sovereignty were also applied. As artificial intelligence decision-making becomes ubiquitous, entering fields such as healthcare, education, and law, we must face an important question: how can artificial intelligence systems, which are increasingly regulating our lives and making decisions that shape our societies, possess the authority and legitimacy necessary for effective governanceю

## 3. Results

The research results showed that the international legal regulation of artificial intelligence has undergone significant evolution, and currently, a multi-layered and complex architecture is forming. The development of global artificial intelligence governance has passed through several key stages and has been realized through the interaction of various organizations. National regulation applies only at the national level, but its extraterritorial application is often viewed as a form of legal imperialism. National regulation is criticized for failing to provide a uniform definition of artificial intelligence, inadequately addressing key issues, and failing to ensure compliance. International organizations have begun to recognize the necessity of cross-border artificial intelligence regulations, including private regulations.

The Organization for Economic Co-operation and Development played a pioneering role in artificial intelligence governance. In 2019, OECD member countries adopted AI ethics principles, and subsequently, G20 leaders committed to adhering to principles drawn from the OECD set. The OECD principles are considered the first intergovernmental standard on artificial intelligence and consist of five value-based principles and five recommendations [24]. These principles promote trustworthy and innovative artificial intelligence and emphasize respect for human rights and democratic values. The OECD principles subsequently served as a basis for numerous national and regional initiatives and function as an important guideline in the global artificial intelligence discourse.

The Recommendation on the Ethics of Artificial Intelligence adopted by UNESCO in 2021 is also an important component of global artificial intelligence governance. In November 2021, all 193 UNESCO member states adopted the Recommendation on the Ethics of Artificial Intelligence, which is intended to guide signatories in developing appropriate legal frameworks. The UNESCO recommendations created a comprehensive framework for the ethical development and application of artificial intelligence, based on principles of human values, fairness, transparency, and accountability [25]. The strength of the UNESCO

principles is their global orientation, which acknowledges the differing conditions of countries with varying levels of technological development. However, after the adoption of the UNESCO AI Recommendation in November 2021, less than a quarter of signatories worked with the body to implement the proposed policy instruments. This indicates serious challenges regarding implementation [9].

In 2023, the G7 launched the Hiroshima AI Process to strengthen cooperation in artificial intelligence governance. The Hiroshima process is a significant initiative aimed at strengthening cooperation and developing common standards in advanced artificial intelligence technologies, especially generative artificial intelligence. This process aims to form a common understanding among G7 nations regarding artificial intelligence safety, transparency, and accountability.

The United Nations has also taken significant steps to strengthen artificial intelligence governance. In October 2023, UN Secretary-General António Guterres convened a multidisciplinary and multi-national High-level Advisory Body on AI to analyze and advance recommendations on the international governance of artificial intelligence. The Advisory Body's final report was submitted on August 31, 2024, and included seven key recommendations: a biannual intergovernmental and multi-stakeholder policy dialogue; creating an independent international scientific panel; an exchange for AI standards; an AI capacity development network; a global fund for AI for sustainable development goals; a global AI data framework; and a dedicated AI office within the UN Secretariat [28]. While these recommendations contribute to global artificial intelligence governance, their piecemeal approach and reliance on the voluntary cooperation of large technology companies raise concerns about their effectiveness in ensuring the comprehensive oversight needed in today's rapidly evolving artificial intelligence landscape.

**Regional Regulatory Models: Diversity and Convergence**

The European Union has played a leading and most influential role in global artificial intelligence regulation. The European Union's AI Act is considered the first comprehensive legal regime regulating the development and application of artificial intelligence. The European Union's AI Act came into force in stages starting August 1, 2024, defining unacceptable AI uses and requiring transparency, potentially impacting the global operations of US big tech companies by 2026 [26]. The Act applies a risk-based approach and divides artificial intelligence systems into four levels: unacceptable risk, high risk, limited risk, and minimal risk. High-risk artificial intelligence systems, such as biometric identification tools or AI used in healthcare, face strict compliance requirements, including algorithmic audits, transparency mandates, and external oversight. Applications posing unacceptable risk, such as social scoring and predictive policing, are completely banned.

The European Union's focus on harmonization is another important aspect of its governance strategy. By coordinating regulations among member states, the European Union aims to eliminate barriers to cross-border cooperation and create a single digital market. However, achieving this harmonization requires balancing the diverse priorities of members, highlighting the need for constant dialogue and coordination. The European Union's approach demonstrates a risk-based regulatory model and a supranational approach, ensuring a balance between innovation and ethical oversight.

The Council of Europe's Framework Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law represents the world's first legally binding international treaty. The Council of Europe is developing a legally binding international convention on artificial intelligence and human rights, with the draft text published in December 2023. The convention aims to ensure that the activities of state and non-state subjects within the lifecycle of artificial intelligence systems comply with standards of human rights, democracy, and the rule of law [27]. During the signing process, the convention was signed by Andorra, Georgia, Iceland, Norway, Moldova, San Marino, the United Kingdom, Israel, the United States, and the European Union. The convention's global ambitions and comprehensive approach have the potential to create a Strasbourg effect in global artificial intelligence governance.

The United States is applying a different approach to regulating artificial intelligence. The US has focused more on encouraging innovation and uses a combination of federal and state-level legislative initiatives, as well as actions by existing regulatory bodies such as the Federal Trade Commission. A 2024 report by the Stanford University Cyber Policy Center summarized authors' views on debates regarding artificial intelligence regulation: regulating artificial intelligence is necessary

and unpredictable, but if not done well, it can be counterproductive [17]. The US approach emphasizes a sectoral regulatory regime and utilizes different regulatory bodies for different applications of artificial intelligence technologies.

In contrast, China applies a centralized approach, aiming to directly shape artificial intelligence development in accordance with state national security priorities. Government-supported initiatives dominate the sector, integrating artificial intelligence into strategic areas such as surveillance and social governance. China's model raises issues around transparency and corporation-state relations. Since 2021, the People's Republic of China has adopted several laws regarding artificial intelligence, including the Deep Synthesis Provisions in 2023, the Internet Information Service Algorithmic Recommendation Management Provisions in 2022, and Interim Measures for the Management of Generative AI Services. China's centralized artificial intelligence governance demonstrates state-centric control through algorithmic surveillance [18].

**Standardization and Technical Harmonization Mechanisms**

Standardization is emerging as an important mechanism in global artificial intelligence governance. The joint work of the International Organization for Standardization and the International Electrotechnical Commission has been successful in delivering a text of global character: the key standard titled "ISO/IEC 22989:2022(E)—Artificial intelligence concepts and terminology," published in July 2022. Although this standard is voluntary, it paves the way for regulating artificial intelligence internationally in the future and is an important example of para-regulation. Para-regulation is a prime example of artificial intelligence representing the "first mover advantage" in international law [3]. Key standards like ISO/IEC 22989:2022 aim to create a common language, and negotiation practices in international law reinforce this common language.

Organizations such as the National Standards organization promote cross-border standards and work with governments. Organizations such as the National Institute of Standards and Technology (NIST) advance cross-border standards and work with governments (including with the US via the National Artificial Intelligence Advisory Committee) on their implementation. These efforts and others follow governance patterns emerging in the "new interdependence" of 21st-century globalized spaces. These governance patterns ensure close cooperation between international, state, and non-state actors and often significantly empower non-state actors in shaping final rules and their implementation.

**The Sovereignty-Internationalism Paradox and Digital Sovereignty**

The research identified a significant structural tension: the paradox between sovereignty and international cooperation. The sovereignty-internationalism paradox represents the tension in artificial intelligence governance between states' control over algorithmic systems and the necessity for cross-border cooperation to regulate borderless technologies [19]. As artificial intelligence systems strengthen national sovereignty, they simultaneously demand global cooperation, posing a fundamental challenge to governance frameworks. Existing scientific research often overlooks artificial intelligence's ability to simultaneously strengthen and destabilize state power.

In response, states have implemented "digital sovereignty" schemes. Digital sovereignty extends classical sovereignty to address governance challenges posed by digital infrastructures. Digital sovereignty includes control over data flows, regulatory oversight of platforms, and the ability to shape local technological ecosystems [20]. For example, developed economies like the European Union emphasize digital sovereignty through comprehensive regulatory frameworks like the AI Act. The French have stated: "We must address the issue of artificial intelligence, otherwise we risk losing control over our future." The US, in turn, has moved to express "digital solidarity" to counter Chinese and European sovereignty narratives.

While Europe aims to regulate private companies, European digital sovereignty also includes geo-economics, an ideology that views supporting European firms as a central part of digital progress. The presence of competitors in the artificial intelligence arena gives states reasons to defend idealized claims to monopolize legitimate political power. In the context of artificial intelligence, there have been some expressions of "digital sovereignty" that reassert the state's (or in Europe's case, the supranational) claim to sovereign power in response to these competitors.

## 4. Discussion

The research results indicate that a risk-based regulatory approach is emerging as the main paradigm of global artificial intelligence governance. A risk-based regulatory framework calibrates oversight and intervention in proportion to the potential severity or probability of harm. Risk-based models often allow regulators to differentiate obligations based on assessed risk levels, assigning stricter requirements to high-risk entities and lighter oversight to entities considered low-risk [2]. Risk-based models have become important across many sectors in finance, healthcare, environmental protection, and now artificial intelligence.

The European Union's AI Act is implementing a risk-based governance logic, and this logic is penetrating international AI frameworks, albeit unevenly. While the Act's tiered risk taxonomy remains largely specific to the European Union, its underlying logic is subtly reshaping global regulatory rhetoric, stakeholder expectations, and institutional designs. The risk-based approach is spreading beyond European borders. In regions like Latin America, while many countries have some laws on data protection and cybersecurity, artificial intelligence governance is still in the early stages of development. Countries like Brazil, Costa Rica, Argentina, and Uruguay have adopted national artificial intelligence strategies or developed digital transformation strategies.

However, challenges exist even within the risk-based approach. Structuring international oversight solely around identified harmful uses of artificial intelligence also has limitations. Most importantly, while such a use-based governance regime has a significant impact in addressing risks arising from the intentional misuse of artificial intelligence, its impact in mitigating other forms of artificial intelligence risks is unclear. Advanced artificial intelligence systems can pose risks arising from the potential malfunction of these systems, regardless of their specific application or form of use.

The research identified a serious tension between international cooperation and fragmentation in global artificial intelligence governance. One of the barriers to strong global artificial intelligence governance is the diversity of regional and national approaches [4]. While the European Union has chosen comprehensive and strict regulation, other regions are applying different strategies. Although many states acknowledge the need for international cooperation in artificial intelligence governance, multilateralism faces many practical problems. Diverse national interests, geopolitical competition, and concerns regarding data sovereignty can hinder achieving international consensus.

Existing artificial intelligence governance models often tend towards top-down approaches, where policy formation and implementation are primarily managed by governments and lack sufficient participation from grassroots stakeholders. This can lead to policies disconnecting from practical needs and failing to adequately consider the demands of ordinary users, small businesses, and civil society organizations [16]. Furthermore, large technology companies possessing significant influence and resources in the field of artificial intelligence often dominate policy discussions, while the interests of small enterprises and startups can be easily overlooked.

Global artificial intelligence governance faces three structural contradictions: socio-technical complexity, the principles paradox, and institutional path dependence. Artificial intelligence as an invisible infrastructure reshapes institutional and social relations, yet national frameworks cannot address global impact, especially as strong normative guidelines are lacking in areas such as human rights, inclusivity, and labor protection within AI value chains. The four principles of the UN High-level Advisory Body face practical obstacles: the computing infrastructure gap hinders inclusivity, neocolonial legal systems limit the realization of public interests, and data monopolies held by platform companies challenge sovereignty.

The research identified the importance of algorithmic constitutionalism as a new conceptual approach [15]. The increasing influence of artificial intelligence on social life poses various risks to human well-being and human rights. These risks are most profoundly found in information spheres created and controlled by Google, Facebook, Reddit, Apple, and Amazon. Algorithmic constitutionalism offers a new approach to combating the risks presented by artificial intelligence governance. The idea of algorithmic constitutionalism involves a two-level code structure: the operative or object level and the meta level.

Machine learning models now support algorithmic markets, determine whose speech is amplified or restricted, shape state decisions ranging from resource allocation to predictive policing, and influence our access to information on critical issues like voting and public health. As artificial intelligence decision-making

becomes ubiquitous, we must face an important question: how can artificial intelligence systems, which are increasingly regulating our lives and making decisions that shape our societies, possess the authority and legitimacy necessary for effective governance?

To ensure artificial intelligence legitimacy, we must develop methods to involve the public in designing and constraining the artificial intelligence systems serving the community, so that these technologies reflect shared values and political will. Constitutional AI, proposed and developed by Anthropic AI, is a step towards this goal and offers a model for how artificial intelligence can be built [14]. Government bodies are increasingly adopting digital technologies based on artificial intelligence to assist in decision-making and improve their work. Algorithmic automation has broad benefits for administrative functions and decision-making, including law enforcement, courts, public service delivery, legal guidance, and inspections [13].

The research emphasizes the fundamental importance of human rights and ethical principles in artificial intelligence governance. The potential benefits of artificial intelligence can only be utilized safely and fairly through respect for international law at national, regional, and global levels. International law, particularly international human rights law, recognizes a catalog of fundamental rights and freedoms agreed upon by all states in universal instruments such as the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, as well as customary international law [10].

The Council of Europe's Framework Convention, UNESCO's recommendations, and the OECD principles all emphasize fundamental principles such as human dignity, transparency, accountability, privacy, equality, and non-discrimination. Determining how best to govern artificial intelligence is not an easy task, and it is a complex exercise requiring the coordinated action of various stakeholders with different cultural, social, political, and expert perspectives. This means states and other relevant entities, including private companies, civil society, and academia, must work together.

Existing legal mechanisms, such as the UNESCO recommendations and the European Union's AI Act, lack global coherence and need multi-level and distributed governance models to manage risks. In terms of prospects, artificial intelligence may lead to a redefinition of concepts like sovereignty and accountability, but the risk remains of reinforcing digital inequalities and technological hegemony by developed countries. The conclusion emphasizes the necessity of developing flexible, ethics-oriented legal frameworks based on international cooperation to ensure a balance between technological innovation and the protection of fundamental human rights principles.

The research identified serious problems associated with the low level of participation of Global South states in global artificial intelligence governance. Many developing countries are worried about becoming an "ethical colony" – being forced to adopt foreign regulatory standards that may not fit their socio-political contexts or research priorities [8]. This contradiction in governance models—between normative assertiveness and pragmatic sovereignty—raises critical questions about global artificial intelligence coordination and the legitimacy of emerging digital education frameworks.

To address this tension, the BRICS AI ethics framework proposed the principle of "mutual recognition with differences." This approach encourages countries to develop domestic ethical and regulatory standards adapted to their national circumstances while establishing mutual coordination through equivalence assessments. Such a model offers a flexible and pluralistic way to manage cross-border scientific research that allows for ethical diversity without sacrificing international cooperation.

Primary threats to constitutional democracies now stem not mainly from public bodies, but from the governance of spaces that are formally private but perform functions traditionally vested in state bodies without any safeguards. Therefore, this research focuses on understanding the role of constitutional law in an algorithmic society and the extent to which it can limit the rise of digital private powers.

The research results indicate the need for new institutional mechanisms for the effective global governance of artificial intelligence. Although many efforts have had a positive impact, effective activity requires the establishment of an international artificial intelligence agency under the auspices of the United Nations [6]. The establishment of an international artificial intelligence agency is justified by several key developments. First, the rapid development of artificial

intelligence technologies and potential risks are attracting increasing attention from states and international organizations. Second, large technology companies are facing increasing legislative challenges. Third, incidents such as the misuse of artificial intelligence, harm from autonomous systems, or data breaches could lead to stricter regulations [12].

Historical analogy suggests that international negotiations on a scale equal to the problems posed by artificial intelligence typically take many years to conclude. It took more than a decade from initial UN discussions on the international control of nuclear materials to the conclusion of negotiations for the Statute of the International Atomic Energy Agency. In the case of artificial intelligence, states likely do not have that much time. Given the risks posed, lawyers and policymakers must urgently consider what form future international artificial intelligence governance should take and how this can be achieved.

## 5. Conclusions

The study has shown that directing artificial intelligence towards global governance is a complex, multi-stage process full of structural tensions. While the system of international legal regulation is still in the process of formation, several important conclusions can be drawn.

First, a risk-based regulatory approach is emerging as the main paradigm of global artificial intelligence governance. This approach is being widely applied across various jurisdictions, especially in the European Union, and is influencing other regions as well. The risk-based model allows for calibrating oversight and intervention in proportion to the severity and probability of potential harm, enabling a flexible response to the diverse applications and risk levels of artificial intelligence technologies.

Second, international organizations, including the OECD, UNESCO, the UN, and the Council of Europe, are playing an important role in global artificial intelligence governance. These organizations are creating a platform for negotiations and agreements between states and other stakeholders, developing common principles and standards, and providing technical assistance and capacity building to member states. However, international law plays a central role in artificial intelligence governance, providing states with a common vocabulary as well as greater clarity, predictability, and trust in addressing this global and complex problem.

Third, the diversity of regional and national approaches represents both an opportunity and a challenge. The European Union's comprehensive and strict approach, the United States' sectoral and innovation-based strategy, and China's centralized state control model demonstrate the complexity and multipolar nature of global artificial intelligence governance. The European Union's risk-based regulatory model demonstrates a supranational approach ensuring a balance between innovation and ethical oversight, while China's centralized AI-driven governance demonstrates state-centric control through algorithmic surveillance. This diversity poses challenges regarding interoperability and harmonization, but at the same time offers opportunities for experimentation and learning for different contexts and priorities.

Fourth, the sovereignty-internationalism paradox is a fundamental problem of artificial intelligence governance. States wish to maintain sovereignty over artificial intelligence technologies, but the cross-border nature of artificial intelligence necessitates international cooperation. To resolve this paradox, new governance models, such as digital federalism, are being proposed. Digital federalism integrates subsidiarity and multi-level sovereignty, ensuring the harmonization of cross-border norms while maintaining national political independence.

Fifth, ensuring the participation of Global South states and bridging the digital divide remains a critical task. Currently, artificial intelligence development and governance are concentrated in a few developed countries and large technology companies. Given the global impact of artificial intelligence, this inequality can lead to unjust and ineffective governance systems. Due to the global nature of artificial intelligence technologies, it is essential that all states, especially developing countries, play a meaningful role in decisions regarding artificial intelligence governance.

Sixth, human rights and ethical principles are of fundamental importance at all levels of artificial intelligence governance. All major international instruments emphasize principles of human dignity, transparency, accountability, and fairness. By adopting this strategy, the international community can work towards generating the benefits of artificial intelligence, mitigating its risks, and aligning its development with the fundamental principles of international law.

Seventh, algorithmic constitutionalism and digital governance are emerging as new conceptual approaches. These approaches offer new mechanisms to ensure the legitimacy of artificial intelligence systems, engage the public, and preserve democratic values. Multi-governance is an opportunity to shape the future of artificial intelligence, making these values salient.

Eighth, standardization and technical harmonization are important mechanisms in global artificial intelligence governance. International standardization organizations like ISO/IEC play a crucial role in creating a common language and technical frameworks. However, although these standards are voluntary, they exert a path-dependence effect on future regulation.

Ninth, new institutional mechanisms, possibly an international artificial intelligence agency, are necessary. The current piecemeal approach and reliance on voluntary cooperation are ineffective in ensuring the comprehensive oversight needed in the rapidly evolving artificial intelligence landscape. Historical experience shows that international negotiations on a scale equal to technological problems can take many years, but in the case of artificial intelligence, there is no opportunity to wait that long.

Tenth, there are several important directions for future research. First, it is necessary to develop practical governance mechanisms that ensure a balance between sovereignty and international cooperation. Second, it is important to increase the participation of developing countries in artificial intelligence governance and ensure capacity building. Third, it is necessary to develop technical and legal tools to ensure the transparency, accountability, and compliance of artificial intelligence systems with human rights. Fourth, it is important to create effective cooperation mechanisms between the state, the private sector, civil society, and academia.

Ultimately, due to the global nature of artificial intelligence technologies, their effective governance can only be realized on the basis of international cooperation and shared principles. Global artificial intelligence governance requires a complex balance between technological innovation and societal interests, state sovereignty and international cooperation, human rights and security, and democratic values and efficiency. In the future, the international architecture of artificial intelligence governance is expected to evolve further, requiring the active participation of all stakeholders and demanding flexible, inclusive, and effective mechanisms.

## References

1. Tallberg, J., Erman, E., Furendal, M., Geith, J., Klamberg, M., & Lundgren, M. (2023). The Global Governance of Artificial Intelligence: Next Steps for Empirical and Normative Research. International Studies Review, 25(3).
2. Abulibdeh, A., Zaidan, E., & Abulibdeh, R. (2024). AI Governance in a Complex and Rapidly Changing Regulatory Landscape: A Global Perspective. Humanities and Social Sciences Communications, 11(1).
3. Bello y Villarino, J.-M. (2024). Global Standard-Setting for Artificial Intelligence: Para-regulating International Law for AI? The Australian Year Book of International Law, 41(1), 157-188.
4. Roberts, H., Hine, E., Taddeo, M., & Floridi, L. (2024). Global AI governance: barriers and pathways forward. International Affairs, 100(3), 1275-1286.
5. Marda, V., & Alonso Villota, G. (2024). AI Governance in the Age of Uncertainty: International Law as a Starting Point. Just Security.
6. Aaronson, S. A., & Leblond, P. (2025). The establishment of an international AI agency: an applied solution to global AI governance. International Affairs, 101(4), 1483-1504.
7. Dremliuga, R., Pereverzeva, A., & Kolodin, N. (2023). Artificial Intelligence, Decision Making and International Law. Nordic Journal of International Law, 92(1), 1-10.
8. Barzelay, G., Anderson, J., & Smith, L. (2024). Governing Artificial Intelligence Responsibility in Low to Middle Income Countries. California Western International Law Journal, 54(2), 415-452.
9. AllahRakha, N. (2024). UNESCO's AI Ethics Principles: Challenges and Opportunities. International Journal of Law and Policy, 2(9), 24-36.
10. Abdullahi, M., & Hassan, A. (2024). Artificial Intelligence and International Law: The Impact of Emerging Technologies on the Global Legal System. Journal of Politics and Law, 7(2), 45-78.
11. Renieris, E., & Mitchell, A. (2024). International governance of advancing artificial intelligence. AI & Society, 39(5), 2431-2451.
12. Baker, J. N. (2024). International Law and Advanced AI: Exploring the Levers for 'Hard'

Control. Institute for Law & AI.
13. Coglianese, C., & Lobel, O. (2024). Algorithmic Administration as Constitutional Governance. In Oxford Handbook of AI Governance (pp. 345-378). Oxford University Press.
14. Abiri, G. (2024). Public Constitutional AI. Georgia Law Review, 59 (Forthcoming). Available at SSRN.
15. Perez, O., & Schejter, A. (2023). Algorithmic Constitutionalism: the Next Frontier of Constitutional Law? Indiana Journal of Global Legal Studies, 30(2), 451-489.
16. Wu, T., & Johnson, M. (2025). Co-Governance and the Future of AI Regulation. Harvard Law Review, 138(5), 1589-1645.
17. Congressional Research Service. (2024). Regulating Artificial Intelligence: U.S. and International Approaches and Considerations for Congress (Report R48555).
18. Creative Rights Institute. (2024). 2024 Blueprint of Global AI Legislative Policy Efforts: A Comprehensive Analysis of Worldwide AI Governance Frameworks.
19. Ahmad, S., & Chen, Y. (2025). The sovereignty-internationalism paradox in AI governance: digital federalism and global algorithmic control. Discover Artificial Intelligence, 5(1), 45-73.
20. Srivastava, S., & Bullock, J. (2024). AI, Global Governance, and Digital Sovereignty. arXiv preprint arXiv:2410.17481.
21. Liu, H., Martinez, R., & Nakamura, K. (2025). Global AI Governance: Where the Challenge is the Solution. arXiv preprint arXiv:2503.04766.
22. Chang, C. (2024). Global Minds, Local Governance: Reimagining International AI Regulation. University of Illinois Law Review Online, 2025(1), 45-89.
23. Li, W., Kim, S., & Dubois, M. (2025). Cross-border higher education cooperation under the dual context of artificial intelligence and geopolitics. Frontiers in Education, 10.
24. Organisation for Economic Co-operation and Development. (2024). OECD AI Principles (Updated 2024). OECD Publishing.
25. United Nations Educational, Scientific and Cultural Organization. (2021). Recommendation on the Ethics of Artificial Intelligence. UNESCO.
26. European Parliament and Council. (2024). Regulation (EU) 2024/1689 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act). Official Journal of the European Union, L 2024/1689.
27. Council of Europe. (2024). Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law. Council of Europe Treaty Series No. 225.
28. United Nations Secretary-General's High-level Advisory Body on Artificial Intelligence. (2024). Governing AI for Humanity: Final Report. United Nations.
29. United Nations System Chief Executives Board for Coordination. (2024). United Nations System White Paper on AI Governance. UN System.
30. International Telecommunication Union. (2024). AI Governance Day Report 2024. ITU Publications.