



ADVANCE SOCIAL SCIENCE ARCHIVE JOURNAL

Available Online: <https://assajournal.com>

Vol. 05 No. 01. Jan-March 2026. Page#.5953-5961

Print ISSN: [3006-2497](#) Online ISSN: [3006-2500](#)Platform & Workflow by: [Open Journal Systems](#)**Artificial Intelligence: Pakistan's Untapped Engine for Economic Growth-A Legal and Policy Analysis****Samer Javed**

Advocate, District and Session Courts, Sahiwal

Email: samerjavedrawalgujjar@gmail.com**Abstract**

Artificial intelligence has developed from a purely technical breakthrough to a strategic tool for economic growth, innovation, and national competitiveness. Pakistan can use AI as a catalyst for investment, productivity, and fair economic growth with the right laws, regulatory supervision, and forward-thinking public policy. Despite artificial intelligence's transformative potential, institutional, legal, and regulatory shortcomings have prevented Pakistan from fully reaping its benefits. Though progress has been sluggish, Pakistan has started developing legal and policy frameworks for emerging technologies and artificial intelligence. Policymakers have occasionally relied on restrictive measures rather than comprehensive regulation because regulatory institutions find it difficult to keep up with the rapid advancement of technology. In order to promote innovation, draw in investment, and facilitate AI-driven economic growth, this paper contends that proactive, risk-based governance must take the place of reactive restrictions. In addition to identifying significant institutional and regulatory gaps, the study critically evaluates Pakistan's current legal and policy framework pertaining to AI and draws comparative conclusions from top international models of AI governance. It suggests an all-encompassing legal and policy framework that safeguards fundamental rights, encourages the responsible use of AI, and strikes a balance between innovation and accountability. In order to position Pakistan as a competitive player in the global digital economy and unlock artificial intelligence as an unexplored engine of sustainable economic growth, the paper concludes that an adaptable and forward-thinking legal framework is essential.

Keywords: Artificial Intelligence, Economic Growth, AI Governance ,Pakistan ,Public Policy ,Legal Framework ,Innovation ,Digital Economy

Introduction:

Artificial intelligence (AI) is the capacity of computer systems or machines to carry out tasks like learning, reasoning, problem-solving, decision-making, language comprehension, and pattern recognition that typically require human intelligence. The current era, characterized by the advancement of artificial intelligence, the ability of computer systems to analyze, synthesize, solve complex tasks, and engage with legal subjects presents a new challenge for the legal profession. (Trandafirescu, 2026). Recent advances in artificial intelligence (AI) have created significant opportunities for nations to enhance innovation, productivity, and economic growth. However, realizing these benefits requires comprehensive and

effective legislation to ensure the responsible and impactful adoption of AI. Artificial intelligence's enormous contribution to sustainable economic development across industries is becoming increasingly apparent, attracting immediate attention from industry, academia, and governments. Arguably, AI-related activities will be the driving force behind future economic development, resulting in fundamental shifts in the structure and approach to production, as well as in the quantity and quality of consumption. (Qin et al., 2023) . Despite significant advances in artificial intelligence, legislation has struggled to keep up with the rapid evolution of emerging technologies. Many lawmakers lack the technical expertise and regulatory frameworks required to effectively govern AI, making it difficult to pass and enforce appropriate legislation. Although AI has the potential to accelerate economic growth when properly regulated, it cannot be fully realized in the absence of legal certainty. Public confidence in new technologies is heavily reliant on official government recognition and regulation in developing nations like Pakistan. People are frequently hesitant to invest in or adopt AI-related technologies unless they are legally recognized because they are afraid of fraudulent schemes, abrupt government bans, and unclear laws. As a result, Pakistan needs a proactive and well-thought-out legal framework that fosters innovation while guaranteeing responsibility, public trust, and long-term economic growth.

Artificial intelligence has its roots in the middle of the 20th century. The term “artificial intelligence” was first used in 1956 at the Dartmouth Summer Research Project on Artificial Intelligence, where computer scientist John McCarthy envisioned the creation of machines that could carry out tasks that required human intelligence. (Sharma,2024). AI research initially concentrated on rule-based systems and symbolic reasoning intended to mimic human decision-making. Rapid developments in processing power, data accessibility, and machine learning over the ensuing decades turned artificial intelligence from a theoretical idea into a useful technology. Artificial intelligence is one of the most important technologies influencing economic growth, innovation, and societal development today. It powers innovations in healthcare, education, finance, manufacturing, agriculture, transportation, public administration, and many other sectors. AI is drastically altering how people interact and engage in economic activity, and it is thought to have the potential to spark a fourth industrial revolution. It's possible that significant economic growth is no longer supported by the conventional factors of production, physical capital, and labor. Most people agree that one of the key elements influencing future economic growth will be AI. (Lu, 2021).

Artificial Intelligence and Economic Growth:

In the twenty-first century, one of the most important forces behind economic expansion is artificial intelligence. The widespread adoption and diffusion of artificial intelligence can have an impact on the growth of the world economy. (Wang et al., 2021) The impact of artificial intelligence (AI) adoption has taken center stage in the last ten years due to the rapid shift of applied AI in the workplace. The CFM-CEPR report, which was published in May 2023, provided a forward-looking perspective on how AI will affect developed nations' economies and labor markets over the ensuing ten years, particularly with regard to global economic growth and unemployment dynamics. The majority of reviewers predict that the impact of AI will result in 4 to 6 percent global economic growth, which is higher than the 3.5 percent average growth that is anticipated. However, most reviewers anticipate that AI will have a negligible economic impact on unemployment rates in developed economies. On the anticipated trend in

unemployment rates, the majority of others were divided. Perhaps because AI is still in its early stages of development and represents an extremely uncertain future, the majority of reviewers were cautious in this regard.(Zafar et al., 2026)

By automating processes, increasing productivity, and encouraging innovation, AI propels economic growth. By automating repetitive tasks and increasing productivity in production processes, AI lowers operating costs and frees up resources, allowing businesses to concentrate on higher-value activities. It also makes the best use of available resources, increasing production while cutting waste. Furthermore, by offering solutions customized to each customer's needs, AI makes it easier to personalize products and services, which boosts demand and improves the general customer experience.

Additionally, it facilitates advanced data analysis, which makes it simpler to execute profitable business plans and make well-informed decisions. AI fosters innovation, creates jobs in developing industries, and encourages the creation of new technologies in research and development.(Abaab et al., 2026) AI has become a major force behind economic expansion in the twenty-first century. It has the capacity to generate new employment, boost worker productivity, cut expenses and enhance the overall competitiveness of economies. (Gondauri, 2025) .AI's potential to boost global GDP has been emphasized by a number of international organizations. According to a widely cited PwC report from 2017,

“ Artificial intelligence (AI) could boost the world economy by about US\$15.7 trillion by 2030, making it one of the biggest business opportunities in history. China is predicted to gain almost US\$7 trillion, while North America could gain about US\$3.7 trillion, mostly as a result of increases in consumer demand, automation, and productivity. ”

Similarly, adoption of AI could significantly boost labor productivity and generate new sources of economic value in both developed and developing economies, according to research from the McKinsey Global Institute.(Rao & Verweij, 2017). According to a research institute under the Ministry of Industry and Information Technology, the size of China's artificial intelligence (AI) industry is expected to surpass 1.2 trillion yuan (\$176.7 billion) in 2025, up 40% year over year. As of June 2026, there were over 6,600 AI companies in China, accounting for 15% of the global total, according to the China Academy of Information and Communications Technology (CAICT). According to CAICT, the nation has created a comprehensive industrial system that includes sector-specific applications, models and frameworks, and fundamental infrastructure. (Xinhua, 2025)

One of the best examples of AI-driven economic expansion is China. The Chinese government has made significant investments in AI research, digital infrastructure, and industrial innovation through its Next Generation Artificial Intelligence Development Plan (2017). AI is used in e-commerce, finance, healthcare, and smart manufacturing by Chinese companies like Tencent, Alibaba, Huawei, and Baidu. While intelligent manufacturing increases production efficiency and product quality, AI-powered logistics systems lower operating costs and delivery times. China is now a global leader in AI innovation thanks to these developments, which have increased the country's industrial competitiveness and greatly boosted GDP growth.(Webster et al., 2017)

The United Arab Emirates (UAE), which was the first nation to name a Minister of State for Artificial Intelligence in 2017, is another effective example. In order to incorporate AI into government services,

healthcare, transportation, energy, and education, the UAE unveiled its National AI Strategy 2031. Smart government services, predictive healthcare systems, driverless vehicles, and digital public administration are examples of AI applications that have increased productivity while lowering administrative expenses. These programs improve the nation's long-term economic sustainability and encourage economic diversification outside of the oil industry. The public sector in the United Arab Emirates can benefit from artificial intelligence (AI) in a number of ways, including increased efficiency, cost savings, better decision-making, and better service delivery, as well as increased safety, accuracy, and fewer human errors. Data-related problems, privacy and security issues, infrastructure and technical constraints, and user-centric barriers are among the challenges noted. (Akhoirshieda et al., 2024)

Artificial intelligence (AI) has been acknowledged by the UK as a major force behind economic expansion. The UK has created one of Europe's top AI ecosystems thru its National AI Strategy and ongoing investments in research and innovation. The UK had 5,862 AI businesses in 2024 that supported 86,139 high-skilled jobs, generated £23.9 billion in revenue, and contributed £11.8 billion in Gross Value Added (GVA) to the economy, according to the government's Artificial Intelligence Sector Study 2024. In 2024, private investment in the sector reached a record £2.9 billion. These numbers show how AI is increasingly boosting innovation, productivity, and the growth of the UK's knowledge-based economy. (Department for Science, Innovation and Technology [DSIT], 2025)

According to Pakistan's AI Policy 2025, artificial intelligence can boost productivity, innovation, and digital transformation in a number of important economic sectors. According to the policy, AI could boost Pakistan's GDP growth from 7% to 15% by 2030 if it is widely adopted and implemented effectively. Additionally, it projects substantial economic gains of about US\$12 billion in agriculture, US\$5 billion in industry, and US\$26 billion in the services sector, indicating AI's potential to boost long-term sustainable growth, increase national competitiveness, and open up new economic opportunities. (Islam, 2025)

The Legal Landscape of Artificial Intelligence in Pakistan:

As of yet, Pakistan lacks a thorough legal or constitutional framework that expressly governs artificial intelligence. The Islamic Republic of Pakistan's 1973 Constitution guarantees fundamental rights like the protection of life, liberty, privacy, equality, and freedom of expression, but it doesn't specifically address the creation, application, or management of AI technologies. Similarly, Pakistan currently depends on a number of digital laws that were not passed to control artificial intelligence but have some indirect connection to the digital world. Algorithmic accountability, AI liability, deepfakes, and automated decision-making are not covered by the Prevention of Electronic Crimes Act, 2016 (PECA), which mainly deals with cybercrimes like identity theft, electronic fraud, unauthorized access to computer systems, and cyberterrorism. In a similar vein, the Digital Nation Pakistan Act, 2025 encourages e-governance and digital transformation but does not create a specific legal framework for AI. Although the proposed Personal Data Protection Bill aims to control the gathering and use of personal data, there is a great deal of uncertainty about data governance for AI systems if it is not passed. Furthermore, AI-generated content, ownership of AI-created works, and the legal ramifications of AI-powered goods and services are not specifically addressed by Pakistan's current intellectual property and consumer protection laws, which only offer broad legal protections. As a result, Pakistan's current legal system is still disjointed and inadequate to handle the intricate moral, legal, and regulatory issues raised by artificial intelligence. The

National AI Policy 2025, Pakistan's first specific policy initiative aimed at promoting the responsible development and governance of artificial intelligence, was introduced by the government in recognition of these shortcomings.

Pakistan's audacious foray into the future with its recently completed National Artificial Intelligence Policy 2025 (also known as "AI Policy 2025") promises revolutionary innovation and growth.(Digital Rights Foundation, 2025) Pakistan's National AI Policy's inability to address the fundamental infrastructure needed for long-term AI development is a major drawback. For AI research, model training, and large-scale deployment, a stable energy supply and access to high-performance computing are necessary preconditions. Data centers cannot function effectively without reliable electricity, which limits domestic access to GPUs and other cutting-edge computing resources. As a result, AI development becomes reliant on foreign cloud platforms, raising the risks of data externalization, talent migration, and dependence on outside digital infrastructure. Although the policy encourages AI adoption, innovation, and capacity building, Pakistan's ability to build strong domestic AI capabilities may be hampered by its scant attention to energy security and compute infrastructure.(Khan, 2025)

Comparative Legal Analysis of Artificial Intelligence Regulation in Selected Jurisdictions :

Regulation (EU) 2024/1689, also referred to as the Artificial Intelligence Act (EU AI Act), is one of the most extensive legal frameworks for artificial intelligence adopted by the European Union (EU). By establishing a uniform legal framework specifically for the development, marketing, implementation, and use of artificial intelligence systems (AI systems) in the Union in accordance with Union values, this regulation aims to improve the functioning of the internal market while promoting the adoption of human-centric and reliable AI while guaranteeing a high level of protection of health, safety, and fundamental rights as enshrined in the Charter of Fundamental Rights of the European Union (the "Charter"), including democracy, the rule of law, and environmental protection, protecting against the negative effects of AI systems within the Union, and fostering innovation.The development, marketing, and use of AI systems cannot be restricted by Member States unless specifically permitted by this Regulation, which guaranties the free movement of AI-based goods and services across national borders.(European Parliament & Council of the European Union, 2024). The development of artificial intelligence puts current legal frameworks to the test, particularly in the areas of civil liability, international regulation, and fundamental rights protection. To address these concerns, the European Union created the AI Regulation and AI Liability Directive, which emphasize accountability, transparency, and consumer protection while fostering innovation.(Malacka, 2024)

China has released several policy documents over the years, including the New Generation Artificial Intelligence Development Plan, which was released in 2017 and outlined China's national strategic goals and AI development pathways. It also suggested that China become a global hub for AI innovation by 2030.A clear blueprint for standardizing the growth of China's AI industry has been provided by the 2020 Guidelines for the Construction of the Standard System of the New Generation of Artificial Intelligence, guaranteeing that technological innovation and industrial application advance simultaneously within a standardized framework. Additionally, it emphasizes safety and ethics to support the long-term growth of AI.According to the State Council's 2025 Opinions on Deepening the Implementation of the "Artificial Intelligence+" Initiative, by 2030:China's high-quality development will be fully enabled by A. Over 90%

of new-generation intelligent terminals and intelligent agents will be in use. China's economic development will see significant growth in the intelligent economy and the advancement of achievement sharing and technological inclusivity will be promoted. China will fully transition into a new phase of intelligent economy and intelligent society development by 2035, offering solid backing for the fundamental implementation of socialist modernization. (Ding, 2025)

Instead of having a single, all-encompassing federal AI law similar to the EU AI Act, artificial intelligence regulation in the US is rather sector-specific and decentralized. A growing number of state-level laws, executive orders, agency regulations, and federal legislation all influence AI governance. The current administration has also drastically changed the regulatory strategy. Federal policies concentrated on enabling the government to adopt and acquire AI while upholding privacy, civil rights, and civil liberties protections. (The White House, 2025)

These strategies teach Pakistan valuable lessons. Pakistan should steer clear of both regulatory fragmentation, which could lead to uncertainty for users and businesses, and a strictly restrictive regulatory model, which might deter investment and innovation. Rather, Pakistan should create an adaptable and risk-based framework for AI governance that combines incentives for research, investment, entrepreneurship, and technological advancement with safeguards for fundamental rights and accountability. Emerging concerns like algorithmic accountability, data security, AI-generated content, intellectual property, liability, automated decision-making, and consumer protection should all be covered by such a framework.

Recommendations for Pakistan:

1: A comprehensive and adaptable legal framework pertaining to artificial intelligence should be implemented in Pakistan. The framework should take a risk-based regulatory approach, meaning that while low-risk applications are still subject to less stringent regulations, high-risk AI systems are subject to stricter requirements regarding transparency, accountability, human oversight, safety, and fundamental rights. While avoiding overly stringent regulations that might stifle technological innovation, such legislation would give businesses, investors, developers, and consumers legal certainty. AI-related liability, automated decision-making, deepfakes, intellectual property, consumer protection, and AI-generated content should all be explicitly covered. Increased legal clarity would boost technological innovation, attract both foreign and domestic investment in AI-related companies, and eventually boost Pakistan's economy and productivity.

2: A specific institutional framework for AI governance with distinct regulatory and coordinating authority should be established in Pakistan. In order to create AI standards, monitor high-risk applications, provide regulatory guidance, and regularly update policies in response to technological advancements, the responsible institution should bring together government, academia, industry, and technical experts. To enable startups and companies to test cutting-edge AI applications under regulated circumstances, a regulatory sandbox should be created. This would promote domestic innovation and investment while enabling Pakistan to regulate emerging technologies thru practical experience rather than relying on reactive restrictions. Pakistan's technology-driven economy would be strengthened, investment would be drawn in, new business opportunities would be created, and the expansion of AI enterprises would be facilitated by a stable and innovative regulatory environment.

3: Pakistan should strategically use artificial intelligence to create employment, entrepreneurship, and export opportunities for its large young population. Government policy should prioritize practical AI education and industry-oriented training in areas such as machine learning, data analytics, AI-assisted software development, cybersecurity, and AI-enabled freelancing. Universities should be encouraged to establish partnerships with technology companies so that AI education is connected with market demand. At the same time, financial incentives, grants, tax benefits, and easier access to investment should be provided to AI startups and businesses developing locally relevant AI solutions. Developing an AI-skilled workforce would increase employment and productivity while enabling Pakistani professionals and companies to provide high-value digital services to international markets, thereby increasing foreign exchange earnings, exports, and overall economic growth.

4: Data and AI infrastructure should be viewed as vital parts of Pakistan's economic infrastructure. Reliable electricity, high-performance computing, home data centers, cloud infrastructure, reasonably priced connectivity, and secure national and industry-specific datasets should thus be the focus of investment. Public-private partnerships can increase access to computing resources for businesses, startups, and universities while lessening the financial burden on the government. Better digital and computing infrastructure would boost productivity, lower the cost of AI adoption for Pakistani companies, lessen reliance on foreign systems, and lay the groundwork for long-term, technology-driven economic growth.

5: Lastly, Pakistan should implement an AI-for-economic-growth strategy that pinpoints industries where AI can produce the most economic value and allocates public funding and legal assistance to those industries. For responsible AI adoption, public administration, manufacturing, healthcare, education, agriculture, taxation, and financial services should be given top priority since increased productivity and service delivery in these sectors can result in broader economic benefits. Pakistani AI startups should be given the chance to develop solutions for problems facing the public sector thru government procurement. Widespread use of AI in productive sectors can lower operating costs, boost productivity, create new industries and job opportunities, improve Pakistan's competitiveness in global markets, and ultimately boost national income and accelerate sustainable economic growth.

Conclusion:

Pakistan's economic growth could be significantly influenced by artificial intelligence, but this potential cannot be realized without strong legislative and policy backing. This study shows that the effective adoption of AI is still hampered by Pakistan's disjointed regulatory framework, inadequate AI infrastructure, data-governance issues, and lack of qualified human resources. While the National AI Policy 2025 offers a significant starting point, its effective execution necessitates more robust institutions, unambiguous legal regulations, infrastructure investment, AI skill development, and policies that promote investment and innovation. Thus, proactive AI governance must replace reactive regulation in Pakistan. Pakistan should view AI as a strategic economic opportunity that can boost productivity, create jobs, draw in investment, increase technology exports, and enhance public and private services rather than viewing it only as a regulatory challenge. Pakistan can turn AI from an emerging technology into a real engine of sustainable economic growth by creating a flexible, innovation-focused legal framework and investing in its people, infrastructure, and domestic AI industry.

Pakistan already has the opportunity; the key question is whether the nation has the legal and policy capacity to take advantage of it.

References :

- 1: Trandafirescu, B. C. (2026). Lifting the veil of time: From liability for artificial intelligence to the liability of artificial intelligence. In M.-A. Puig Hernández, S. Fanni, O. Van Nam, & A. A. Dumitrache (Eds.), *Artificial Intelligence, Cyberspace and Digital Transformation: Legal Challenges for Innovation, Security and Human Rights* (pp. 77–96). ADJURIS – International Academic Publisher.
<https://doi.org/10.62768/ADJURIS/2026/4/05>
- 2: Qin, Y., Xu, Z., Wang, X., & Škare, M. (2023). Artificial intelligence and economic development: An evolutionary investigation and systematic review. *Journal of the Knowledge Economy*, 15, 1736–1770.
<https://doi.org/10.1007/s13132-023-01183-2>
- 3: Sharma, S. (2024). Benefits or concerns of AI: A multistakeholder responsibility. *Futures*, 157, 103328. <https://doi.org/10.1016/j.futures.2024.103328>
- 4: Lu, C.-H. (2021). The impact of artificial intelligence on economic growth and welfare. *Journal of Macroeconomics*, 69, 103342. <https://doi.org/10.1016/j.jmacro.2021.103342>
- 5: Wang, L., Sarker, P., Alam, K., & Sumon, S. (2021). Artificial intelligence and economic growth: A theoretical framework. *Scientific Annals of Economics and Business*, 68(4), 421–443.
<https://doi.org/10.47743/SAEB-2021-0027>
- 6: Zafar, S., Ullah, I., Khan, K. S., & Khattak, H. (2026). Artificial intelligence patents and economic growth: A growth framework for OECD countries. *Journal of Asian Development Studies*, 14(4), 35–44.
<https://doi.org/10.62345/jads.2025.14.4.4>
- 7: Abaab, M., Drira, M., & Helali, K. (2026). Artificial intelligence and economic growth in G20 economies: Investigating nonlinear effects through a GMM method. *Humanities and Social Sciences Communications*, 13, Article 1214.
<https://doi.org/10.1057/s41599-026-07490-8>
- 8: Gondauri, D. (2025). The impact of artificial intelligence on gross domestic product: A global analysis (arXiv:2505.11989v1).
<https://doi.org/10.48550/arXiv.2505.11989>
- 9: Rao, A., & Verweij, G. (2017). Sizing the prize: PwC’s global AI study: Exploiting the AI revolution. PricewaterhouseCoopers. <https://www.pwc.com/gx/en/issues/analytics/assets/pwc-ai-analysis-sizing-the-prize-report.pdf>
- 10: Xinhua. (2025, December 14). China’s core AI industry to top 1.2 trillion yuan in 2025: Research institute. *China Daily*. <https://www.chinadaily.com.cn/a/202512/14/WS693e9ba6a310d6866eb2e84a>.
- 11: Webster, G., Creemers, R., Kania, E., & Triolo, P. (2017, August 1). Full translation: China’s “New Generation Artificial Intelligence Development Plan” (2017). DigiChina.
<https://digichina.stanford.edu/work/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017>
- 12: Akhoirshieda, M. S., Ku Khalif, K. M. N., & Awang, S. (2024). Artificial intelligence in the United Arab Emirates public sector: A systematic literature review. *IAES International Journal of Artificial Intelligence*, 13(3), 2472–2481. <http://doi.org/10.11591/ijai.v13.i3.pp2472-2481>

- 13: Department for Science, Innovation and Technology. (2025, September 3). Artificial Intelligence sector study 2024. GOV.UK. <https://www.gov.uk/government/publications/artificial-intelligence-sector-study-2024/artificial-intelligence-sector-study-2024>
- 14: Islam, W. (2025). Will AI transform Pakistan? Assessing the 2025 national policy (Knowledge Brief No. 2025:136). Pakistan Institute of Development Economics (PIDE). <https://pide.org.pk/research/will-ai-transform-pakistan-assessing-the-2025-national-policy/>
- 15: Digital Rights Foundation. (2025, August). DRF analyses Pakistan's National AI Policy 2025. <https://digitalrightsfoundation.pk/wp-content/uploads/2025/08/DRF-Analyses-Pakistans-National-AI-Policy-2025-1.pdf>
- 16: Khan, M. N. (2025). From AI ambition to AI capability: Rethinking Pakistan's AI policy through energy and compute constraints. The Policy Beacon (Vol. 25). Beaconhouse National University. <https://bnu.edu.pk/portals/From%20AI%20Ambition%20to%20AI%20Capability%20Rethinking%20Pakistan%E2%80%99s%20AI%20Policy%20Through%20Energy%20and%20Compute%20Constraints%20By%20Dr%20Naeem.pdf>
- 17: European Parliament & Council of the European Union. (2024). Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act). EUR-Lex. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32024R1689>
- 18: Malacka, M. (2024). AI legislation, private international law and the protection of human rights in the European Union. European Studies – The Review of European Law, Economics and Politics, 11(1), 122–151. <https://doi.org/10.2478/eustu-2024-0006>
- 19: Ding, L. (2025, December 4). China's regulation of artificial intelligence – Progress and challenges. International Bar Association. <https://www.ibanet.org/China-Regulation-of-Artificial-Intelligence-Progress-and-Challenges>
- 20: The White House. (2025, April 7). White House releases new policies on federal agency AI use and procurement. <https://www.whitehouse.gov/releases/2025/04/white-house-releases-new-policies-on-federal-agency-ai-use-and-procurement/>