

CHAPTER 6:

Policy and Governance





Chapter 6: Policy and Governance

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CHAPTER 6:

Policy and Governance

Overview

Al's advancing capabilities have captured policymakers' attention, leading to an increase in Al-related policies worldwide. In recent years, nations and political bodies, including the United States and the European Union, have introduced significant regulations. More recently, many governments have announced major investments in Al infrastructure. This wave of policymaking reflects a growing recognition of the need to both regulate Al and harness its transformative potential.

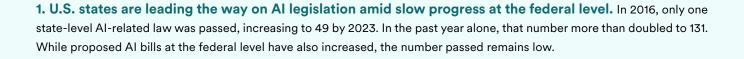
This chapter explores global AI governance, starting with a timeline of key AI policymaking events in 2024. It then examines global and U.S. legislative efforts, analyzes AI-related mentions in legislative discussions, and reviews how U.S. regulatory agencies have approached AI. The chapter concludes with an analysis of public investment in AI in the U.S., with most data sourced independently by the AI Index.



CHAPTER 6:

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Chapter Highlights



- 2. Governments across the world invest in Al infrastructure. Canada announced a \$2.4 billion Al infrastructure package, while China launched a \$47.5 billion fund to boost semiconductor production. France committed €109 billion to Al infrastructure, India pledged \$1.25 billion, and Saudi Arabia's Project Transcendence represents a \$100 billion Al investment initiative.
- **3. Across the world, mentions of AI in legislative proceedings keep rising.** Across 75 major countries, AI mentions in legislative proceedings increased by 21.3% in 2024, rising to 1,889 from 1,557 in 2023. Since 2016, the total number of AI mentions has grown more than ninefold.
- **4.** Al safety institutes expand and coordinate across the globe. In 2024, countries worldwide launched international Al safety institutes. The first emerged in November 2023 in the U.S. and the U.K. following the inaugural Al Safety Summit. At the Al Seoul Summit in May 2024, additional institutes were pledged in Japan, France, Germany, Italy, Singapore, South Korea, Australia, Canada, and the European Union.
- 5. The number of U.S. Al-related federal regulations skyrockets. In 2024, 59 Al-related regulations were introduced—more than double the 25 recorded in 2023. These regulations came from 42 unique agencies, twice the 21 agencies that issued them in 2023.
- **6. U.S. states expand deepfake regulations.** Before 2024, only five states—California, Michigan, Washington, Texas, and Minnesota—had enacted laws regulating deepfakes in elections. In 2024, 15 more states, including Oregon, New Mexico, and New York, introduced similar measures. Additionally, by 2024, 24 states had passed regulations targeting deepfakes.



Chapter 6: Policy and Governance 6.1 Major Global Al Policy News in 2024

This chapter begins with an overview of some of the most significant Al-related policy events in 2024, as selected by the Al Index Steering Committee.

6.1 Major Global AI Policy News in 2024

Feb. 21, 2024

Singapore plans to invest \$1B in Al over 5 years

In his budget speech on February 16, Deputy Prime Minister and Finance Minister Lawrence Wong announced that the government will allocate over \$1 billion over the next five years to support Al computation, talent development, and industry growth.



Source: The Straits Times, 2024
Figure 6.1.1

Mar. 11, 2024

Abu Dhabi launches \$100B Al investment firm

In March 2024, Abu Dhabi established MGX Fund Management Limited, a state-owned investment firm specializing in AI technologies, with a target of managing \$100 billion in assets. This initiative aligns with the UAE's strategic objective to position itself as a global leader in AI innovation and technology.



Source: Bloomberg, 2024 Figure 6.1.2

Mar. 13, 2024

Artificial Intelligence Act is passed by European Parliament

The landmark EU AI Act, the first of its kind, was <u>passed</u> by the European Parliament three months after a provisional agreement on the bill was reached. The legislation introduces sweeping provisions around AI systems, including transparency and reporting obligations, risk-based regulations, and bans on certain applications including social scoring, human manipulation, and biometric categorization that uses "sensitive characteristics." Most of the Act's provisions will come into <u>effect</u> in 2026 after a two-year implementation period. The Act is significant for its restrictive nature, building on the already stringent EU privacy regulations. It takes a unique approach to regulating generative AI, differing from other proposed legislation, and has been met with resistance from the industry.



Source: Time, 2023 Figure 6.1.3



Mar. 15, 2024

India drops plan to require government approval for launch of new Al models

Less than a month after issuing an advisory requiring tech firms to obtain government approval before launching new AI models, India releases <u>revised guidelines</u> for companies' self-regulation, following backlash from entrepreneurs and investors. Under the new guidelines, firms must inform users if their models are undertested or unreliable. India's IT Ministry retained its emphasis that AI models should not undermine electoral integrity or promote bias and discrimination.



Source: <u>TechCrunch</u>, 2024 Figure 6.1.4

Mar. 17, 2024

India launches India Al Mission with \$1.25B investment

In March 2024, India launched the <u>IndiaAl Mission</u> to strengthen its Al ecosystem. The \$1.25 billion initiative aims to build 10,000-plus GPUs via public-private partnerships, develop a national nonpersonal data platform, and support homegrown Al models and deep-tech startups. It also prioritizes ethical Al governance and expanding Al labs beyond major cities to democratize access.



Source: Nature, 2024 Figure 6.1.5

Mar. 20, 2024

French government fines Google 250 million euros over use of copyrighted information

France's competition watchdog, the Autorité de la Concurrence, took a harsh stance toward negligent model training when it <u>fined Google</u> 250 million euros for using French news content to train Bard, now Gemini, the company's Al-powered chatbot—without notifying media companies. The government cited the offense as a breach of EU intellectual property rules, and claimed it prevented publishers and press agencies from negotiating fair prices. Google accepted the settlement and proposed a series of measures to mitigate scraping issues.



Source: NBC News, 2024 Figure 6.1.6



Mar. 21, 2024

U.N. General Assembly adopts resolution promoting "safe, secure, and trustworthy" Al

Backed by more than 120 member states, the U.N. General assembly adopted a "historic" U.S.-led resolution (although not officially legally binding) on the promotion of "safe, secure, and trustworthy" artificial intelligence systems. The assembly called on stakeholders to ensure that artificial intelligence systems be used in compliance with human rights laws, recognizing the role these systems may play in accelerating progress toward reaching the U.N.'s Sustainable Development Goals. The resolution was supported by more than 120 states, including China, and endorsed without a vote by all 193 U.N. member states.



Source: UN News, 2024 Figure 6.1.7

Apr. 7, 2024

Canada pledges CA\$2.4B investment to ensure country's Al advantage

The Canadian Federal Budget for 2024 featured a CA\$2.4 billion package of measures to "secure Canada's Al advantage" in the midst of an intensifying global race for Al development and adoption. Funding would be directed toward a range of initiatives, including increasing capabilities and infrastructure for researchers and developers, boosting Al startups, helping small and medium businesses increase productivity through Al, supporting workers impacted by Al, and creating a new Canadian Al Safety Institute.



Source: Center for International
Governance Innovation, 2024

May 11, 2024

U.K. Al Safety Institute launches open-source tool for assessing Al model safety

The agency released a <u>toolset</u>, called Inspect, designed to assess AI models' capabilities in a range of areas, including core knowledge, ability to reason, and autonomous capabilities. The Institute claimed it was the first time an AI safety testing platform had been spearheaded by a government-backed body, and made available for public use under an open-source license in order to benefit industry, research organizations, and academia.



Source: <u>TechCrunch, 2024</u> Figure 6.1.9



May 21, 2024

U.K. and South Korea cohost Al safety summit in Seoul

At the <u>AI Seoul Summit</u>, attending countries shared the safety measures they adopted in line with the Bletchley Declaration, which was signed the year prior at the U.K. AI Safety Summit. The declaration emphasizes the ethical and responsible development of AI. Building on the progress made at the U.K. summit, countries have since launched or announced plans for AI safety institutes. In Seoul, these nations took another step forward by signing a letter of intent to establish a collaborative network of institutes, highlighting the importance of global cooperation in advancing AI safety.



Source: Center for Strategic and International Studies, 2024 Figure 6.1.10

May 27, 2024

China creates country's largest-ever state-backed investment fund to back its semiconductor industry

China <u>launched</u> a fund worth \$47.5 billion to boost semiconductor production. The launch marks the third phase of China's "Big Fund," which has supported the industry's development since 2014, including crucial investments into the country's two largest chip foundries. The move comes amid rising <u>U.S. export controls</u> on critical technologies like semiconductors that underpin hardware components like GPUs used to train AI systems.



Source: Reuters, 2024 Figure 6.1.11

May 28, 2024

European Commission establishes AI Office

Over three years after the EU AI Act was proposed, the European Commission unveils its <u>cornerstone</u>. The AI Office will play a key role in implementing the Act, enforcing standards for general-purpose AI models, coordinating the development of codes of practice, and applying sanctions for offenses under the Act. With over 140 staff members, the body consists of five units dedicated to different AI-related goals, including promoting societal good through AI and pursuing excellence in AI and robotics.



Source: Center for Strategic and International Studies, 2024 Figure 6.1.12



Jun. 26, 2024

U.S. NIST unveils framework to help organizations identify and mitigate GenAl risks

The National Institute of Standards and Technology (NIST) <u>launches</u> a voluntary framework to help organizations identify unique risks posed by generative Al and recommends a series of actions for mitigating those risks. The framework extends the NIST Al Risk Management Framework released in 2023. Recommended actions include determining Al risk tolerance and respective risk management needs, establishing clear responsibilities for managing Al risks, and involving nondeveloper experts in regular assessment and updates. The framework followed the release of a NIST <u>document on adversarial machine learning</u> outlining a taxonomy of attack types, the effects of such attacks, and mitigation strategies.



Source: FedScoop, 2024 Figure 6.1.13

Jul. 25, 2024

U.S. State Department releases Al Risk Management Profile for Human Rights

The U.S. State Department designed the Risk Management Profile for Artificial Intelligence and Human Rights as a guide for governments, businesses, and civil society to align AI risk management with human rights protections. Built on the NIST AI Risk Management Framework, the Profile outlines four key functions—govern, map, measure, and manage—to assess and mitigate AI risks, from bias to misuse for surveillance. By bridging AI governance and human rights, it provides a globally applicable tool for responsible AI development and deployment.



Source: U.S. Department of State, 2024 Figure 6.1.14

Aug, 2, 2024

U.K. withdraws £1.3B promised for technology and Al infrastructure

The U.K.'s Labour government <u>canceled</u> £1.3 billion in funding promised for technology and AI projects, explaining that the commitments made by the previous government had been "underfunded." Announced in 2023, the projects included £500 million for the AI Research Resource, which funds computing power, and £800 million for the creation of the University of Edinburgh's exascale supercomputer.



Source: BBC, 2024 Figure 6.1.15



Sep. 13, 2024

U.S. White House launches task force on Al data center infrastructure

A White House <u>meeting</u> brought together federal officials and technology executives to discuss securing power sources for robust data center infrastructure critical to Al models. Executives from OpenAl, Anthropic, Amazon Web Services, Nvidia, and Alphabet were present. A White House press release emphasized that advancing Al development in the U.S. is vital for national security and ensuring Al systems are safe, secure, and trustworthy. The newly formed Al data center infrastructure task force will identify opportunities and work with agencies to prioritize the development of Al data centers.



Source: FedScoop, 2024 Figure 6.1.16

Sep. 17, 2024

California governor signs three bills on AI and elections communications

Ahead of the 2024 San Francisco mayoral election, Governor Gavin Newsom <u>announced</u> the signing of three bills into law aimed at combating deepfake election content. AB 2655, AB 2839, and AB 2355 require large online platforms to remove or label digitally altered election content during specified periods, expand the time frame for prohibiting the distribution of deceptive Al-generated election content, and mandate that electoral ads using Al-generated or altered content include appropriate disclosures, respectively.



Source: The Wall Street Journal, 2024 Figure 6.1.17

Sep. 22, 2024

United Nations adopts Global Digital Compact to ensure an inclusive and secure digital future

During the Summit of the Future, U.N. member states adopted the Global Digital Compact, aiming to establish an inclusive, open, sustainable, fair, safe, and secure digital future for all. The Compact emphasizes objectives such as closing digital divides, expanding benefits from the digital economy, fostering a digital space that respects human rights, advancing equitable data governance, and enhancing international governance of artificial intelligence. Guided by principles anchored in international law and human rights, the Compact seeks to harness digital technologies to accelerate progress toward the Sustainable Development Goals.



Source: <u>United Nations, 2024</u> Figure 6.1.18



Sep. 29, 2024

California governor vetoes expansive AI legislation

Governor Gavin Newsom <u>vetoed</u> California's AI safety bill, which would have set a national precedent for AI regulation, given the state's role as home to many leading AI companies. The bill sought to mandate safety testing for frontier AI models before their public release and would have allowed the state attorney general to sue companies over AI-related harm. Supporters argued it was a necessary step to ensure AI safety and accountability, while critics contended it was overly restrictive and could stifle AI development, especially of the open-weight AI ecosystem. Given California's status as the world's fifth-largest economy, the bill's impact could have extended beyond state borders, akin to the Brussels effect, shaping AI governance nationally and internationally. Newsom defended his veto, arguing the bill imposed excessive standards.



Source: Financial Times, 2024 Figure 6.1.19

Oct. 2, 2024

U.S. judge blocks new California Al law over Kamala Harris deepfake

A federal judge in California <u>issued</u> a temporary injunction on one of the state's new Al laws just two weeks after it was signed. In his ruling, Judge Mendez cited the law's vague definition of "harmful" depictions as a potential threat to constitutionally protected speech. The law had been used to prosecute an X user after he had posted a deepfake featuring Kamala Harris.



Source: Los Angeles Times, 2024 Figure 6.1.20

Nov. 8, 2024

Saudi Arabia announces "Project Transcendence"

In November 2024, Saudi Arabia announced Project Transcendence, a \$100 billion Al initiative aimed at establishing the kingdom as a global tech hub. Spearheaded by the Public Investment Fund, the project includes a partnership with Alphabet, Google's parent company, involving an investment between \$5 billion and \$10 billion to develop Arabic-language Al models. This initiative aligns with Saudi Arabia's Vision 2030, which focuses on diversifying the region's economy beyond oil and becoming a meaningful hub of Al.



Source: <u>Telecom Review, 2024</u> Figure 6.1.21



Nov. 14, 2024

European Commission Al Office releases first draft of Code of Practice for General-Purpose Al

The European AI Office <u>issued</u> the first of four drafts for the General-Purpose AI Code of Practice. This code was developed by four working groups of independent experts, focusing on transparency and copyright, risk identification and assessment, risk mitigation, and internal governance. Once finalized, the code will complement the AI Act, allowing AI model providers to demonstrate compliance until a finalized standard is published.



Source: <u>European Union, 2024</u> Figure 6.1.22

Nov. 25, 2024

U.S. launches international AI safety network with global partners

In November 2024, the U.S. Department of Commerce and the U.S. Department of State <u>cohosted</u> the inaugural meeting of the International Network of AI Safety Institutes in San Francisco. This initiative aims to improve global coordination on safe AI innovation, focusing on managing synthetic content risks, testing foundation models, and conducting risk assessments for advanced AI systems. The United States serves as the inaugural chair, with initial members including Australia, Canada, the European Union, France, Japan, Kenya, the Republic of Korea, Singapore, and the United Kingdom. The network has secured over \$11 million in global research funding commitments to support its efforts.



Source: AP, 2024

Dec. 2, 2024

U.S. increases export controls of semiconductor manufacturing equipment and software to China

The U.S. Department of Commerce's Bureau of Industry and Security further <u>limited</u> China's ability to produce advanced semiconductors by announcing new export controls. These measures include restrictions on 24 types of semiconductor manufacturing equipment, three types of software tools, and additional limitations. The secretary of commerce emphasized the importance of these measures in safeguarding U.S. national security.



Source: <u>CNBC, 2024</u> Figure 6.1.24



Dec. 19, 2024

U.N. Security Council debates uses of AI in conflicts and calls for global framework

On Dec. 19, 2024, the United Nations Security Council <u>convened</u> to address the challenges posed by AI in military contexts. Secretary-General António Guterres emphasized that AI's rapid evolution is outpacing current governance frameworks, potentially undermining human control over weapons systems. He called for "international guardrails" to ensure AI's safe and inclusive use. These discussions continue amid <u>reports</u> of widespread autonomous drone and robot use in the ongoing war in Ukraine.



Source: <u>Berkeley Political Review</u>, 2016 Figure 6.1.25

6.2 Al and Policymaking

Global Legislative Records on Al

Overview

The Al Index analyzed legislation containing the term "artificial intelligence" in 114 countries from 2016 to 2024.¹ Of these, 39 countries have enacted at least one Al-related law (Figure 6.2.1).² In total, the countries have passed 204 Al-related laws. Figure 6.2.2 illustrates the annual count of

Al-related laws enacted since 2016. The total number of Al-related laws passed rose from 30 in 2023 to 40 in 2024, making 2024 the second-highest year on record after 2022. Since 2016, the number of Al-related laws passed has grown from just one to 40.

Number of Al-related bills passed into law by country, 2016-24



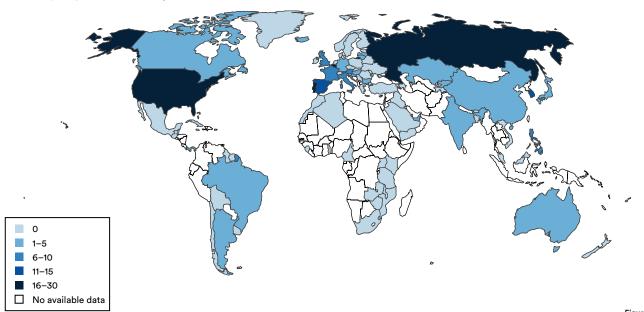


Figure 6.2.1

¹ The analysis may undercount the number of actual laws passed, given that large bills that are proposed can include multiple sections related to Al. For example, the National Defense Authorization Act is introduced as a single omnibus bill but includes a collection of smaller bills that were originally proposed individually and later consolidated into one single comprehensive bill.

² The Al Index monitored Al-related laws passed in Hong Kong and Macao, despite these not being officially recognized countries. Thus, the Index covers a total of 116 geographic areas. Laws passed by Hong Kong and Macao were counted in the overall tally of Al-related laws. This year, the Index decreased its country sample compared to previous years, due to issues accessing the legislative databases of certain nations. As a result, there is a difference between the number of Al-related laws reported this year and those in prior reports.





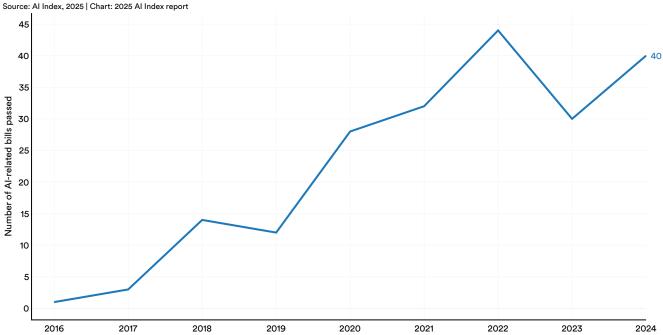
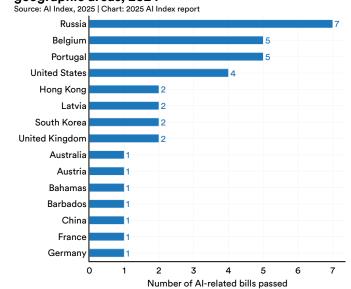


Figure 6.2.2

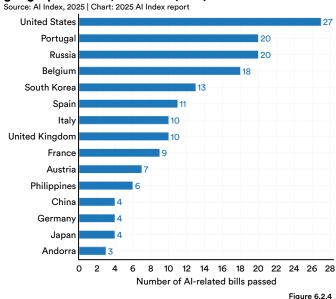
By Geographic Area

Figure 6.2.3 highlights the number of AI-related laws enacted in 2024 across the top 15 geographic areas. Russia led with seven laws, followed by Belgium and Portugal with five each. Figure 6.2.4 displays the total number of Al-related laws passed since 2016, with the United States leading at 27, followed by Portugal and Russia, each with 20.³

Number of Al-related bills passed into law in select geographic areas, 2024



Number of Al-related bills passed into law in select geographic areas, 2016–24 (sum)



3 For concision, Figure 6.2.3 and Figure 6.2.4 display data for the top 15 geographic areas by count. Complete country-level totals will be available in the summer 2025 update of the Global Al Vibrancy Tool. For immediate access, please contact the Al Index team.

Figure 6.2.3



Highlight:

A Closer Look at Global AI Legislation

The following subsection delves into some of the Al-related legislation passed into law during 2024. Figure 6.2.5 samples five countries' laws covering a range of Al-related issues.

Country	Bill name	Description
Austria	Federal law amending the KommAustria Act and the Telecommunications Act 2021	This act establishes a Service Center for Artificial Intelligence to support, advise, and coordinate AI governance in the media, telecommunications, and postal sectors. It mandates an AI advisory board to monitor AI developments, advise the government, and help shape national AI policy. The Service Center must maintain an information portal on AI projects, particularly publicly funded ones. It also provides guidance on AI regulation, cybersecurity, and compliance. To fund these activities, €700,000 is allocated annually, with future adjustments based on inflation.
Belgium	Royal decree establishing an orientation committee on artificial intelligence	This act creates a federal AI steering committee to advise the government on AI-related policies and serve as the primary point of contact for AI governance. The committee, composed of representatives from ministries and public institutions, meets regularly to provide recommendations and coordinate AI policy across Belgium.
France	LAW No. 2021-1382 of October 25, 2021, relating to the regulation and protection of access to cultural works in the digital age ⁴	This law establishes the Regulatory Authority for Audiovisual and Digital Communication (ARCOM) by merging the Higher Audiovisual Council (CSA) and the High Authority for the Distribution of Works and the Protection of Rights on the Internet (HADOPI). It strengthens measures against online piracy and enhances the regulation of digital platforms to safeguard access to cultural content in the digital space. The law also references artificial intelligence as a tool ARCOM can use to monitor and regulate digital platforms, particularly for detecting copyright infringements and combating online piracy.
Latvia	Amendments to the Pre-election Campaigning Law	This act regulates the use of AI in political advertising, requiring clear disclosure for AI-generated content in paid campaign materials. It also bans the use of automated systems with fake or anonymous social media profiles for election campaigns.
Russia	On Amendments to the Federal Law "On Personal Data" and the Federal Law "On Conducting an Experiment to Establish Special Regulations for Creating Necessary Conditions for the Development and Implementation of Artificial Intelligence Technologies in the Constituent Entity of the Russian Federation – the Federal City of Moscow," and on Amendments to Articles 6 and 10 of the Federal Law "On Personal Data"	This act establishes a framework for processing and sharing anonymized personal data to support AI development in government operations. It regulates AI-driven decision making, sets security standards for biometric data, and restricts foreign access to sensitive AI-related datasets.

Figure 6.2.5

4 Law No. 2024-449, passed in 2024, amends Law No. 2021-1382—originally enacted in 2021 and updated in 2024 to include AI—by broadening its scope to cover artificial intelligence and authorizing ARCOM to utilize AI.



US Legislative Records

Federal Level

Figure 6.2.6 illustrates the total number of passed versus proposed Al-related bills in the U.S. Congress and demonstrates a significant increase in proposed legislation.⁵ In the last year, the count of proposed Al-related bills continued to rise, increasing from 171 in 2023 to 221 in 2024. Since 2022, the number of proposed U.S. federal Al-related bills

has almost tripled. Still, of all AI-related bills being proposed, relatively few are passed. The significant increase in U.S. AI-related legislative activity likely reflects policymakers' response to the increasing public awareness and capabilities of AI technologies, particularly generative AI.⁶

Number of congressional Al-related proposed bills and passed laws in the United States, 2016–24

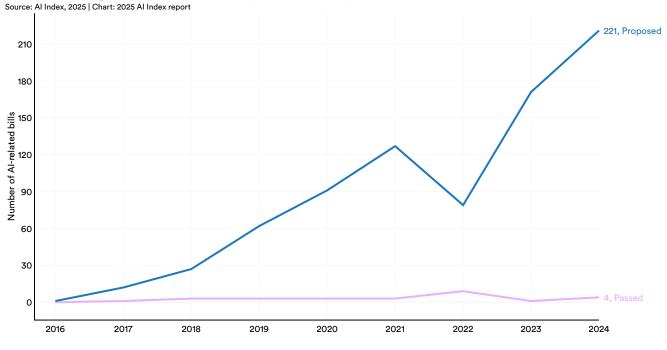


Figure 6.2.6

⁵ A bill is passed when it successfully clears both chambers of Congress: the House and the Senate.

⁶ This section covers only congressional bills. However, U.S. Al policymaking extends beyond Congress to other bodies, including the Executive Branch—such as President Donald Trump's <u>Stargate</u> announcement—and rules coming from regulatory agencies like the <u>FTC</u>.

State Level

The AI Index also tracks data on the enactment of Alrelated legislation at the state level. Figure 6.2.7 highlights the number of Al-related laws enacted by U.S. states in 2024. According to the AI Index tracking methodology, California leads with 22 laws, followed by Utah with 12 and Maryland with eight. Figure 6.2.8 displays the total amount of legislation passed by states from 2016 to 2024. California again tops the ranking with 42 bills, followed by Maryland (17), Virginia (17), and Utah (17).

Number of Al-related bills passed into law in select US states, 2024

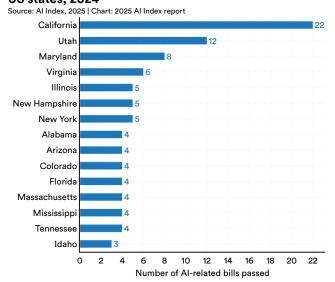


Figure 6.2.7

Number of state-level Al-related bills passed into law in the United States by state, 2016–24 (sum)

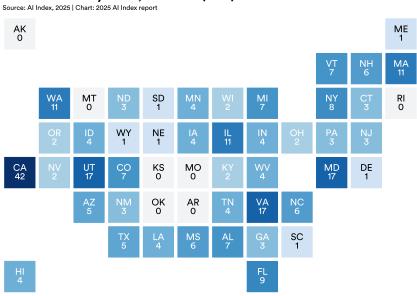


Figure 6.2.8

Since 2016, the number of state-level Al-related laws has rapidly increased. Only one such bill was passed in 2016, rising to 49 by 2023. In the past year alone, that number more than doubled to 131 (Figure 6.2.9).

Number of Al-related bills passed into law by all US states, 2016-24

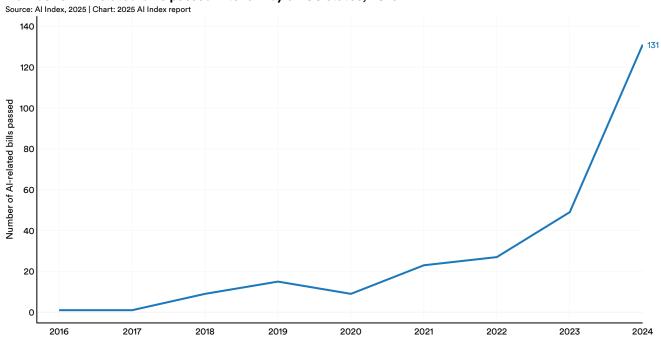


Figure 6.2.9

Highlight:

A Closer Look at State-Level AI Legislation

The following subsection highlights some of the AI-related legislation passed into law at the state level during 2024. The Index profiles legislation from states like California and New York, major hubs for AI companies, alongside states like Alabama and Colorado, which play a smaller role in the industry. This approach highlights the diverse concerns shaping AI legislation at the state level (Figure 6.2.10).

Country	Bill name	Description
Alabama	Relating to elections; to provide that distribution of materially deceptive media is a crime	This bill prohibits the distribution of Al-generated deceptive media within 90 days of an election if intended to mislead voters or harm a candidate, with penalties ranging from a misdemeanor to a felony for repeat offenses. Exceptions apply for media with clear disclaimers, news reporting, and satire, while violations can result in misdemeanor or felony charges, and affected parties may seek legal action.
California	California Al Transparency Act	This act requires large AI providers to offer free AI detection tools and ensure AI-generated content includes clear, permanent disclosures. Violations result in a \$5,000 fine per instance, with enforcement by the attorney general or local authorities.
Colorado	Consumer Protections for Artificial Intelligence ⁷	This bill establishes consumer protections for interactions with high-risk AI systems, requiring developers and deployers to prevent algorithmic discrimination. AI systems must provide transparency, allow consumers to correct or appeal AI-driven decisions, and undergo regular impact assessments.
Massachusetts	An Act to Provide for the Future Information Technology Needs of Massachusetts	This act allocates \$1.26 billion to modernize information technology, cybersecurity, and broadband infrastructure across Massachusetts. It includes \$25 million to integrate AI and machine learning into state government operations, enhancing automation, efficiency, and cybersecurity.
New York	An Act to Amend the General Business Law, in Relation to Requiring Disclosure of Certain Social Media Terms of Service	This act requires social media companies to publicly disclose their terms of service for each platform they own or operate in a clear and accessible manner. It also mandates submitting terms of service reports to the attorney general and imposes penalties for noncompliance.

Figure 6.2.10

7 This bill is colloquially known as the "Colorado Al Act."



Highlight:

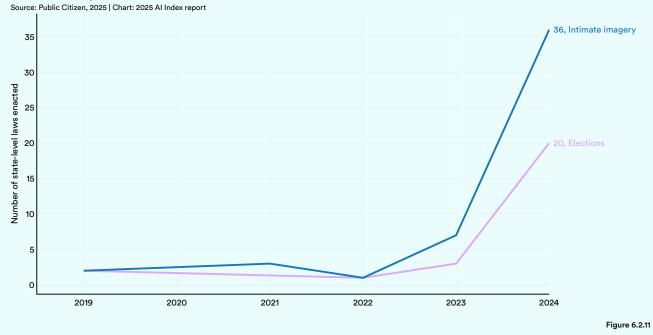
Anti-deepfake Policymaking

States in the U.S. have been particularly active in passing legislation to combat deepfakes. A deepfake is Algenerated synthetic media that manipulates or replaces a person's likeness in video, audio, or images, often creating realistic but deceptive content. Deepfakes can be used to manipulate election outcomes, as discussed in Chapter 3 of this year's Al Index, or to generate explicit images. The nonprofit Public Citizen maintains a database tracking Al deepfake regulations, covering both election-related misuse and intimate image misuse. Figure 6.2.11 illustrates the number of state-level laws passed in the United States over time, encompassing anti-deepfake regulations related to elections and intimate images.8 Figure 6.2.12 highlights

when states enacted laws to regulate AI deepfakes in elections. Before 2024, five states—California, Washington, Texas, Michigan, and Minnesota—had passed such laws. In 2024, 12 more states, including Oregon, New Mexico, and New York, introduced similar regulations.

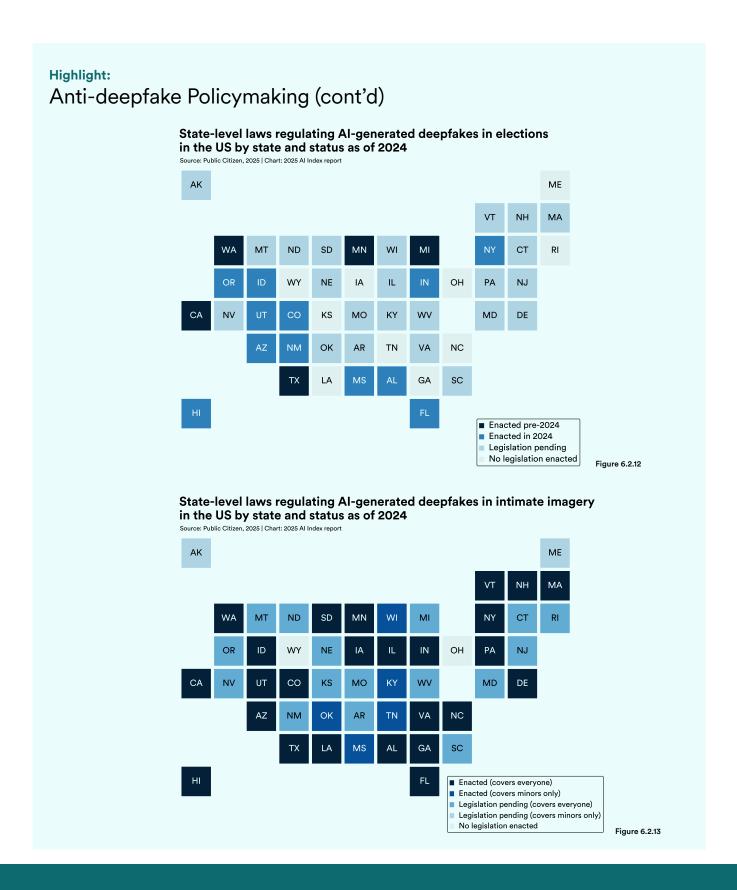
State-level regulations against intimate deepfakes are far more widespread than those against election misuse. A total of 25 states have enacted laws covering all individuals, while five states have passed regulations that apply only to minors (Figure 6.2.13). Wyoming and Ohio are the only states yet to implement any form of intimate deepfake regulation.

Number of state-level laws enacted on Al-generated deepfakes in intimate imagery and elections in the United States, 2019–24



8 In some cases, the Al Index could not verify the enactment dates of certain state-level Al-related anti-deepfake laws tracked by Public Citizen. Figure 6.2.11 includes only those bills with confirmed passage dates.





Global Al Mentions

Another barometer of legislative interest is the number of mentions of artificial intelligence in governmental and parliamentary proceedings. The AI Index conducted an analysis of the minutes or proceedings of legislative sessions in 73 countries that contain the keyword "artificial intelligence" from 2016 to 2024.⁹

Overview

Figure 6.2.14 shows the total number of legislative sessions worldwide that have mentioned Al since 2016. In the past year, Al mentions rose by 21.3%, increasing from 1,557 in 2023 to 1,889. Since 2016, the total number of Al mentions has grown more than ninefold.

Number of mentions of AI in legislative proceedings in 75 select geographic areas, 2016-24

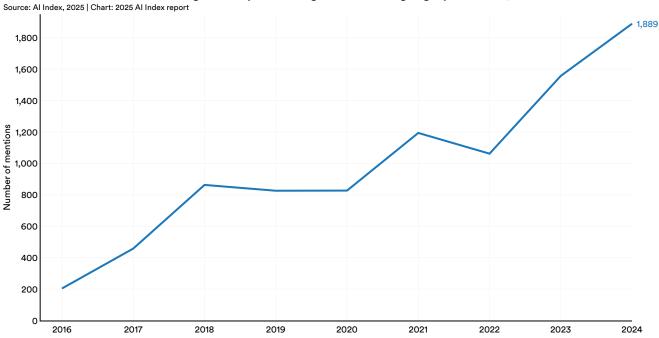


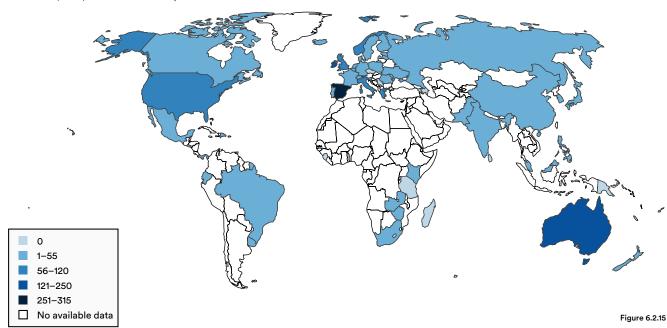
Figure 6.2.14

⁹ The full list of analyzed countries is available in the Appendix. The Al Index research team aimed to review governmental and parliamentary proceedings worldwide, but publicly accessible databases were not available for all countries. This year, the Index slightly adjusted its tracking methodology, resulting in minor differences from previous totals. More specifically, mentions are counted by session, so multiple mentions of Al in the same legislative session count as one mention. The full methodology is detailed in the Appendix. Additionally, the Al Index tracked mentions in Macao and Hong Kong. While not officially countries, their mentions were included in the tally presented in Figure 6.2.14. In total, the Index tracked Al mentions across 75 geographic areas.

In 2024, Spain led in AI mentions within its legislative proceedings (314), followed by Ireland (145) and Australia (123) (Figure 6.2.15). Of the 75 geographic areas analyzed, 57 referenced AI in at least one legislative proceeding in 2024.

Number of mentions of Al in legislative proceedings by country, 2024

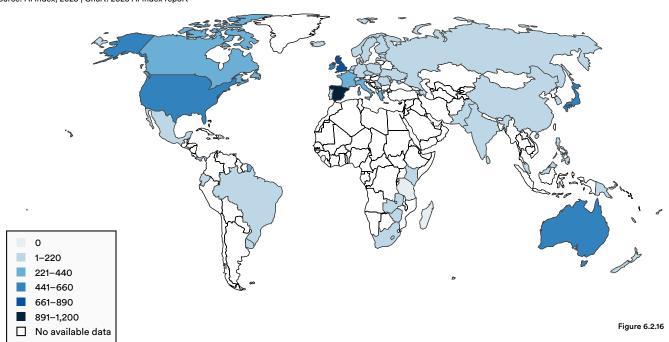
Source: Al Index, 2025 | Chart: 2025 Al Index report



When legislative mentions are aggregated from 2016 to 2024, a somewhat similar trend emerges (Figure 6.2.16). Spain is first with 1,200 mentions, followed by the United Kingdom (710) and Ireland (659).

Number of mentions of AI in legislative proceedings by country, 2016–24 (sum)

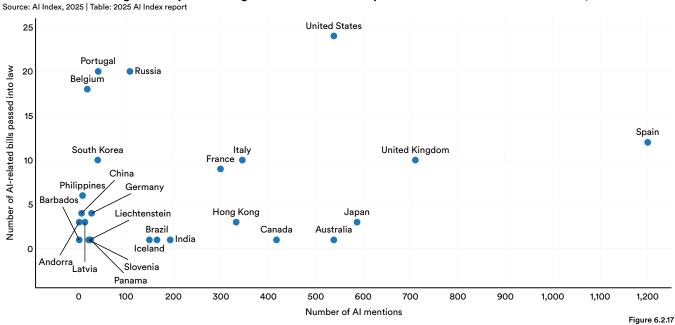






Drawing on data from select countries, Figure 6.2.17 compares Al mentions in parliamentary discussions with the number of Al-related bills passed. In general, greater parliamentary discussion of AI correlates with more AI legislation—although some countries, such as Belgium, Portugal, and Russia, deviate from this trend.

Mentions of AI in legislative proceedings vs. AI-related bills passed into law in select countries, 2016-24





US Committee Mentions

Mentions of artificial intelligence in committee reports by House and Senate committees serve as another indicator of legislative interest in Al in the United States. Typically, these committees focus on legislative and policy issues, investigations, and internal matters.

Figure 6.2.18 tracks AI mentions in U.S. committee reports by legislative session from 2001 to 2024. The 118th session recorded the highest count to date, with 136 mentions—up 83.8% from the 117th session.

Mentions of AI in US committee reports by legislative session, 2001-24

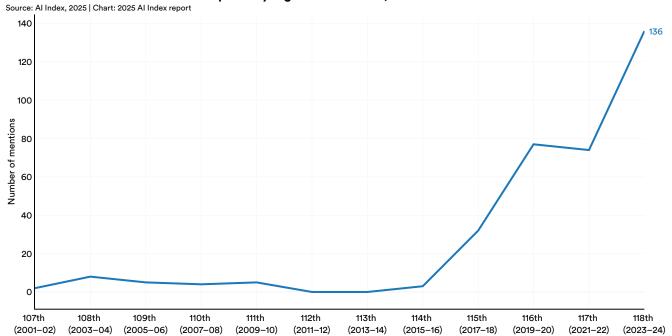


Figure 6.2.18



US Regulations

The advent of AI has garnered significant attention from regulatory agencies—federal bodies tasked with regulating sectors of the economy and steering the enforcement of laws. This section examines AI regulations within the United States. Unlike legislation, which establishes legal frameworks within nations, regulations are detailed directives crafted by executive authorities to enforce legislation. In the United States, prominent regulatory agencies include the Environmental Protection Agency (EPA), Food and Drug Administration (FDA), and Federal Communications Commission (FCC). Since the specifics of legislation often manifest through regulatory actions, understanding the AI regulatory landscape is essential to developing a deeper understanding of AI policymaking.

This section examines Al-related regulations enacted by American regulatory agencies between 2016 and 2024. It provides an analysis of the total number of regulations, as well as their topics, scope, regulatory intent, and originating agencies. To compile this data, the Al Index performed a keyword search for "artificial intelligence" on the Federal Register, a comprehensive repository of government documents from nearly all branches of the American government, encompassing more than 436 agencies.

Overview

The number of Al-related regulations has risen sharply over the past six years, with a particularly noticeable increase in the last year (Figure 6.2.19). In 2024, 59 Al-related regulations were introduced—more than double the 25 recorded in 2023.

Number of Al-related regulations in the United States, 2016-24

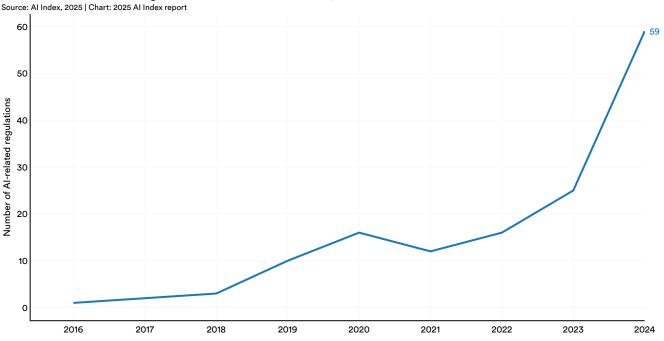


Figure 6.2.19

By Agency

Figure 6.2.20 looks at the number of Al-related regulations in the United States that have been released by different American regulatory agencies since 2016.¹⁰ In 2024, the Department of Health and Human Services issued the most Al-related regulations (14), followed by the Centers for

Medicare and Medicaid Services (7) and the Commerce Department (7). Al regulations came from a record 42 unique departments, up from 21 in 2023 and 17 in 2022. This trend reflects a growing interest in Al across a wider range of U.S. regulators.

¹⁰ Regulations can originate from multiple agencies, so the totals in Figure 6.2.20 do not fully align with those in Figure 6.2.19. Figure 6.2.20 refers to departments as agencies, consistent with the terminology used by the Federal Register, the source of the data.



Number of Al-related regulations in the United States by agency, 2016–24

Source: Al Index, 2025 | Chart: 2025 Al Index report

		2016	2017	2018	2019	2020	2021	2022	2023	2024
	Agency for International Development									1
	Census Bureau								1	
	Centers for Medicare and Medicaid Services			1	2	4	5	4	3	7
	Children and Families Administration					1	1	1		
	Commerce Department					1	1	3	5	7
	Commodity Futures Trading Commission									1
	Comptroller of the Currency							1		2
	Consumer Financial Protection Bureau				1			1	1	4
	Copyright Office, Library of Congress				1				1	1
	Defense Acquisition Regulations System									1
	Defense Department									1
	Education Department					2				2
	Employee Benefits Security Administration							1		
	Employment and Training Administration						1			
	Energy Department								1	1
	Environmental Protection Agency									2
	Executive Office for Immigration Review									1
	Executive Office of the President			2	6	5	2	3	5	5
	Federal Aviation Administration			_				J		1
	Federal Communications Commission					1				2
	Federal Deposit Insurance Corporation									1
	Federal Election Commission									1
	Federal Energy Regulatory Commission									1
	0, 0 ,									1
	Federal Housing Finance Agency									
>	Federal Railroad Administration								1	1
Agency	Federal Reserve System									1
Ϋ́	Federal Trade Commission									2
	Financial Crimes Enforcement Network									1
	Food and Drug Administration					1	1	2	1	2
	Health and Human Services Department			1	2	5	5	5	4	14
	Homeland Security Department	1					3		1	2
	Housing and Urban Development Department					1			1	1
	Industry and Security Bureau							3	4	4
	Investment Security Office					1				1
	Justice Department									1
	Labor Department						1	1	1	
	Library of Congress				1				1	1
	National Credit Union Administration								1	1
	National Highway Traffic Safety Administration									1
Na	tional Oceanic and Atmospheric Administration									1
	National Science Foundation								1	
	Nuclear Regulatory Commission							1		
	Occupational Safety and Health Administration								1	
	Office of the Inspector General					2	1	1		
	Office of the Secretary					1	3	1	1	6
	Patent and Trademark Office					1				1
	Personnel Management Office									1
	Public Health Service						1	1		
	Securities and Exchange Commission							1	2	3
	Small Business Administration									1
	Transportation Department								1	4
	Treasury Department					1		1		4

Figure 6.2.20



Highlight:

A Closer Look at US Federal Regulations

The following section highlights some of the Al-related regulations passed as rules and executive orders at the federal level during 2024 (Figure 6.2.21).

Agency	Regulation	Description
Executive Office of the President	Preventing Access to Americans' Bulk Sensitive Personal Data and United States Government- Related Data by Countries of Concern	This executive order identifies AI use by countries of concern as a significant national security threat. It specifically warns of foreign adversaries exploiting bulk sensitive personal and U.S. government-related data to refine AI algorithms for espionage, cyber operations, and influencing campaigns. To counter this risk, the order implements measures to safeguard sensitive data, including restrictions or bans on data transactions with these countries and strengthened network infrastructure security.
Industry and Security Bureau	Foreign-Produced Direct Product Rule Additions, and Refinements to Control for Advanced Computing and Semiconductor Manufacturing Items	This rule amends the U.S. Export Administration Regulations to tighten controls on semiconductor manufacturing equipment and supercomputer exports, particularly to China. It introduces additional restrictions on semiconductor production, revises existing measures, and implements "Red Flags" to identify risks of unauthorized exports. These changes aim to counter China's efforts to circumvent previous restrictions and limit its ability to develop advanced computing and Al systems that could threaten U.S. national security.
Consumer Financial Protection Bureau	Consumer Financial Protection Circular 2024–06: Background Dossiers and Algorithmic Scores for Hiring, Promotion, and Other Employment Decisions	This rule mandates that employers cannot base employment decisions on background dossiers, algorithmic scores, or third-party reports without complying with the Fair Credit Reporting Act. It reinforces key obligations, particularly for Al-driven systems, such as obtaining a worker's consent before procuring a consumer report. By doing so, the rule sets clear limits on the use of algorithmic scoring in hiring and employment decisions.
Federal Election Commission	Fraudulent Misrepresentation of Campaign Authority	This interpretive rule offers supplemental guidance on the Federal Election Campaign Act (FECA) in response to the rise of Algenerated content. It reaffirms that FECA is "technology neutral" and focuses on whether a person or entity engages in election-related misrepresentation rather than specifically addressing Al misuse.
Office of Investment Security, Department of the Treasury	Provisions Pertaining to U.S. Investments in Certain National Security Technologies and Products in Countries of Concern	This final rule implements Executive Order 14105, mandating that U.S. persons notify the Treasury Department of transactions with entities in countries of concern involved in sensitive technologies that threaten national security. It also prohibits certain transactions with these entities. Issued in 2023, the order targets U.S. investments in high-risk technologies, including AI, semiconductors, and quantum computing, recognizing them as critical sectors where such investments could heighten security threats from adversarial nations.

Figure 6.2.21



6.3 Public Investment in Al

As Al continues to drive innovation in critical sectors such as healthcare, transportation, and defense, public funding has become essential for nations to realize their Al strategies. Understanding how much governments invest in Al research and development (R&D) is important for understanding the broader Al geopolitical landscape, yet tracking these investments presents significant challenges. While national budgets may outline Al-related spending, these allocations do not always translate directly into expenditures. Moreover, Al investments are often embedded within broader scientific or technological initiatives. As a result, pinpointing Al-specific funding can be difficult.

To address this, the AI Index leveraged natural language processing (NLP) techniques to analyze public tenders and contracts and to identify AI-related government spending in countries across the world.¹² Examining tenders provides a more direct measure of investment trends and offers insight into how governments allocate resources over time. Because the AI Index only analyzed countries for which public contract and tenders data was publicly available, some countries could not be analyzed.¹³ This section also presents an analysis of total AI grant spending in the United States.

The Al Index cautions against making direct country-tocountry comparisons based on the public spending data presented in this section. While this analysis includes data on government contracts from a range of countries, it only covers grant-level spending for the United States. This asymmetry stems from the complexity and difficulty of collecting comparable grant data from other countries and regions, such as the European Union and China. However, as the U.S. case demonstrates, a significant share of government spending on AI occurs through grants. In 2023 alone, the Al Index estimates that the U.S. government awarded approximately \$830 million in Al-related public tenders, compared to \$4.5 billion in Al-related grants. Given the current limitations in cross-national data availability and consistency, comparative analysis of public AI spending across countries remains premature. This analysis is intended as an initial step toward more comprehensive global coverage. The Al Index is committed to expanding this work and welcomes collaboration from researchers, institutions, and governments interested in improving the scope and quality of this data.

¹¹ The analysis in this section was led by Lapo Santarlasci.

¹² The full methodology behind this analytical approach is detailed in the Appendix. Due to reporting lags that may result in incomplete data for 2024, the most up-to-date analysis is available for the end of 2023.

¹³ Some major government AI contract-granting regions, such as the EU (at the aggregate level) and China, were excluded from this analysis due to data limitations. The AI Index is committed to expanding its scope to include these and other regions in future editions.

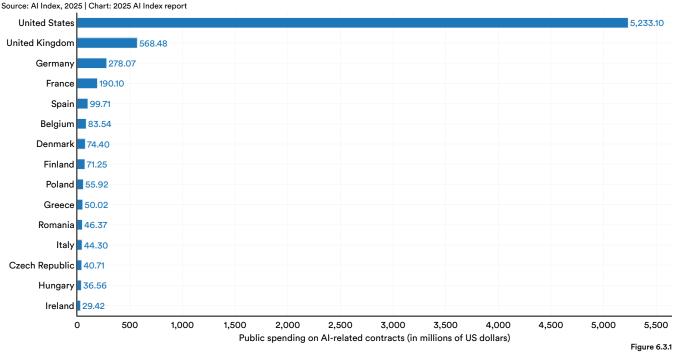


Total Al Public Investments

Figure 6.3.1 summarizes key figures on the number of Alrelated contracts and their value at the country level.¹⁴ From 2013 to 2023, the United States was the leading nation, with about \$5.2 billion distributed across 2,678 unique Al

contracts (Figure 6.3.1 and Figure 6.3.2). In Europe, the United Kingdom, Germany, and France stand out with the highest total contract values awarded, accounting for 56% of European public investments in Al.

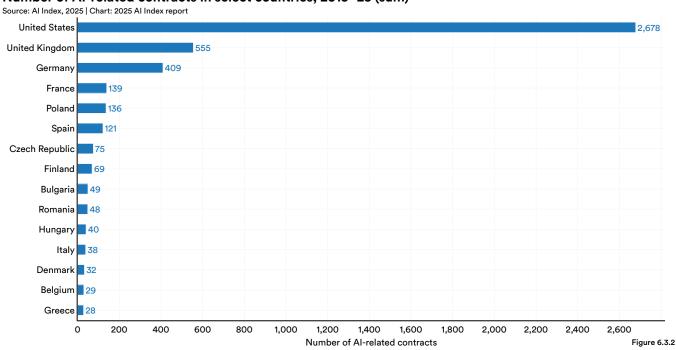
Public spending on Al-related contracts in select countries, 2013-23 (sum)



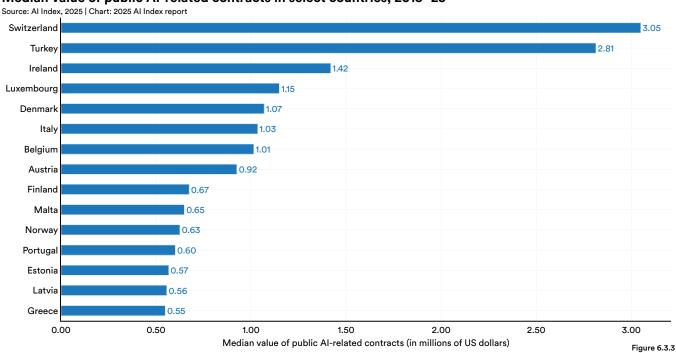
¹⁴ The results and figures presented are subject to missing values ratios of the specific sample of matched tenders: 0.16% for NAICS code, and 26.8% for U.S. dollar values. It is important to note that the sample does not include Northern Ireland tenders, as their offices do not offer an API service or bulk download option for large-scale data collection.



Number of Al-related contracts in select countries, 2013-23 (sum)



Median value of public Al-related contracts in select countries, 2013-23





Which governments spent the most on AI per capita over the past decade? The United States leads with \$1.58 million per 100,000 inhabitants, followed by Finland (\$1.3 million) and Denmark (\$1.3 million) (Figure 6.3.4).

Public spending on Al-related contracts per 100,000 inhabitants in select countries, 2013-23 (sum)

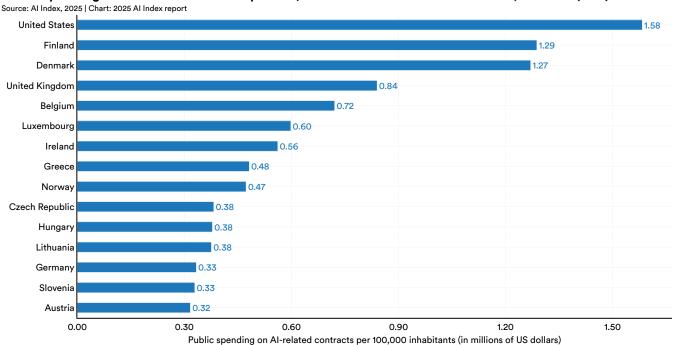


Figure 6.3.4



Figure 6.3.5 illustrates public investment in AI in 2023. The U.S. led with \$831.0 million, followed by the United Kingdom at \$262.6 million. While Germany, Spain, and the U.K. remained among Europe's top investors, countries that historically

ranked lower—such as Romania, Greece, Hungary, and Poland—broke into the top 10. This shift suggests a more balanced distribution of Al-related funding across Europe.

Public spending on Al-related contracts in select countries, 2023

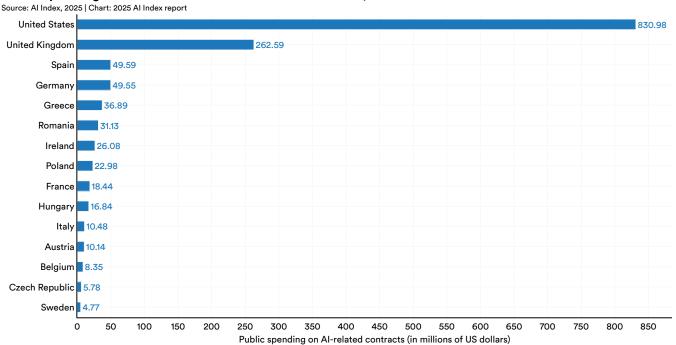


Figure 6.3.5



Figure 6.3.6 illustrates the trends in public AI investment over time across two significant regions of AI investment, the United States and Europe. Both regions have seen substantial growth in AI-related spending over the past decade. Notably, Europe's total AI investment in 2023 was approximately 67 times higher than in 2013, compared to a fifteenfold increase in the United States. Europe experienced particularly sharp

increases in investment, with a 400% year-over-year increase in 2017, followed by another major spike of 200% year-over-year in 2019—a year that also saw a peak in the number of national AI strategies released globally. This sustained upward trend illustrates how government interest and commitment to AI is growing in monetary terms.

Public spending on Al-related contracts in the United States and Europe, 2013-23

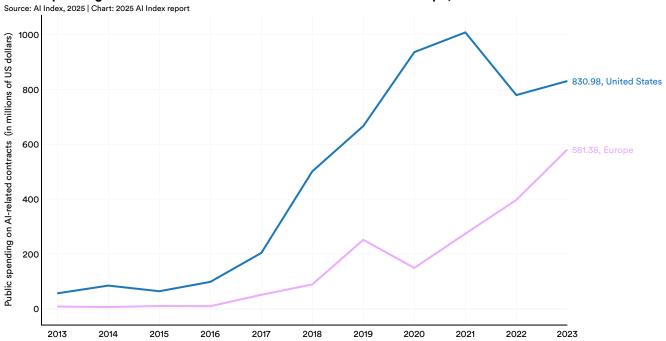


Figure 6.3.6

Figure 6.3.7 charts the investment gap between Europe and the U.S. over time. The disparity in AI investment widened until 2020 but has narrowed over the past three years, indicating that European nations are closing the gap in total Al-related public spending.

Difference in public spending on Al-related contracts between the United States and Europe, 2013-23

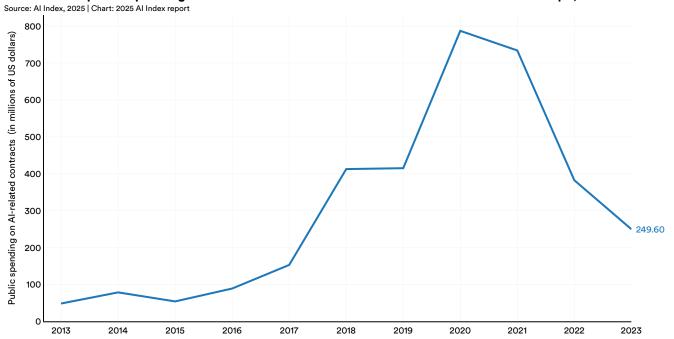


Figure 6.3.7



Figure 6.3.8 documents public investment trends from 2013 to 2023 across the top five European countries—Belgium, France, Germany, Spain, and the U.K. The data reveals a steady increase in investment, marked by periodic peaks. Germany experienced substantial growth, particularly in 2019, following the launch of its national AI strategy in November 2018. The U.K. saw sharp increases in AI-related

public investment in both 2021 and 2023. These investments followed the proposition of a national AI strategy by the AI Council—an independent expert committee established in 2019 to advise the government and provide high-level leadership of the AI ecosystem. Meanwhile, Belgium, France, and Spain exhibited more modest but consistent growth.

Public spending on Al-related contracts in top 5 European countries, 2013-23

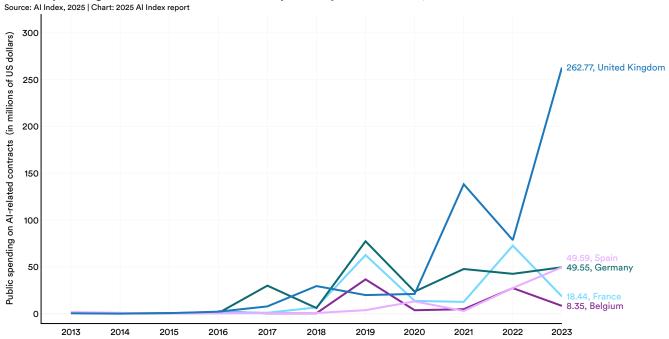


Figure 6.3.8



Spending Across Agencies and Sectors

The distribution of public tender investments in AI reflects stark contrasts between the U.S. and Europe, driven by differing strategic priorities and institutional structures. As shown in Figure 6.3.9, the U.S. has allocated the majority of AI contracts since 2013 to the Department of Defense. This fact is unsurprising given the central role the American defense sector has played in American technological innovation. In 2023, the Department of Defense (75.0%) was followed by the

Department of Veterans Affairs (6.8%) and the Department of the Treasury (5.3%).

While the Department of Veterans Affairs may seem like an outlier, it has made significant investments in recent years—in areas that include the use of AI for diagnosis, robotic prostheses, and mental health.

Public spending on Al-related contracts (% of total) in the United States by funding agency, 2013–23

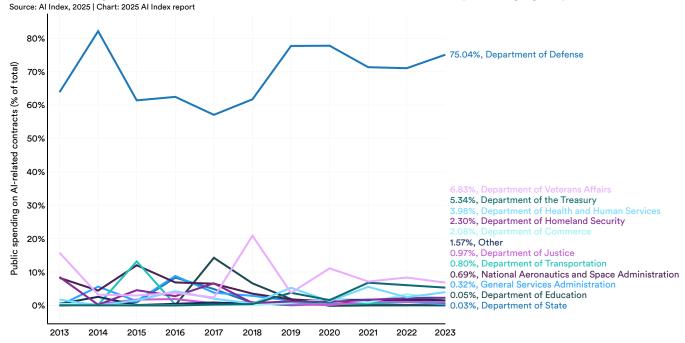


Figure 6.3.9



In Europe, AI investment through public tenders follows a markedly different pattern. Given the lack of aggregated data comparable to that of the U.S., the AI Index categorized European funding entities by their central activity. As shown in Figure 6.3.10, there is a more balanced distribution of investments in Europe. The top funding areas—general

public services, education, and health—collectively account for around 84% of total public AI investments in 2023. In the same year, defense accounted for only 0.84% of all European AI-related public tenders. This stands in stark contrast to the U.S., where defense overwhelmingly dominates AI funding.

Public spending on Al-related contracts (% of total) in Europe by funding agency activity, 2013–23

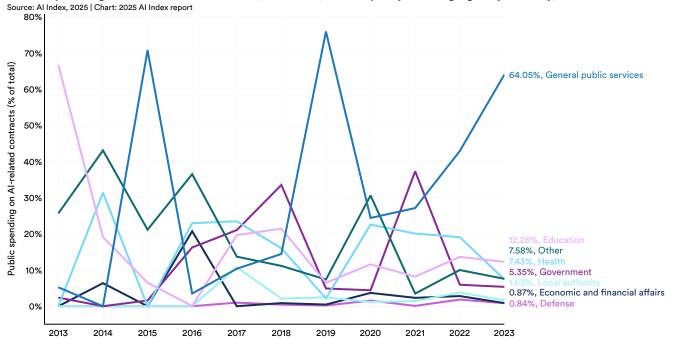


Figure 6.3.10



Highlight:

Al Grant Spending in the US

Public grants also represent a key avenue through which governments allocate resources to Al-related projects and initiatives. Public institutions can directly invest in Al-related projects such as enhancing X-ray angiography interpretation, building Al-driven unmanned aircraft systems for automated soil monitoring, or developing tools for interpretable machine learning. Research grants can be disbursed to organizations like the National Science Foundation or the Department of Health and Human Services (which includes NIH) to conduct Al-focused research. In this section, the Al Index examined data on grants in the U.S. allocated to Al-specific endeavors. As in the previous section, the Al Index employed NLP methodologies to identify Al-related grants.¹⁵

Figure 6.3.11 displays aggregate data on Al-related grant spending in the U.S. from 2013 to 2023. In that period, a total of roughly \$19.7 billion was allocated by the U.S. government for Al-related grants.

US Al-related grants, 2013-23

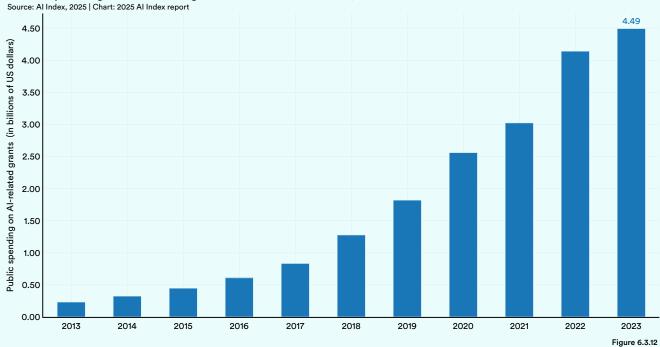
Source: Al Index, 2025 | Table: 2025 Al Index report

Grant statistics	Value
Number of grants	18,399
Total (in millions \$)	19,748.44
Median (in thousands \$)	247.53
Average (in thousands \$)	1,073.34
Total per 100,000 inhabitants (in thousands \$)	5,967.69

Figure 6.3.11

Figure 6.3.12 illustrates the steady rise in Al-related grant funding over time. Between 2013 and 2023, total Al grant funding in the U.S. grew nearly nineteenfold, from \$230 million to \$4.5 billion. From 2014 to 2020, investments saw an average annual growth rate of 40%. This rapid expansion coincided with major advancements in Al technologies—such as deep learning, natural language processing, and computer vision—which likely fueled demand for public-sector Al applications and drove increased funding for related projects.





15 The full methodology behind this approach can be found in the Appendix.



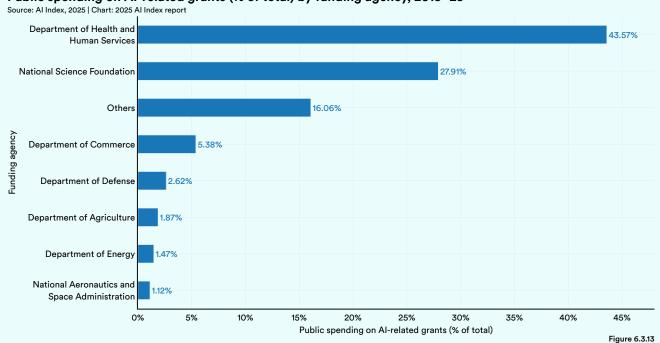
Highlight:

Al Grant Spending in the US (cont'd)

Figure 6.3.13 illustrates the distribution of AI contract values by funding agencies in the U.S. from 2013 to 2023. The greatest share of AI-related grants was allocated to

the Department of Health and Human Services (43.6%), followed by the National Science Foundation (27.9%) and the Department of Commerce (5.4%).

Public spending on Al-related grants (% of total) by funding agency, 2013-23





Appendix

Acknowledgments

The AI Index would like to acknowledge Julia Betts Lotufo and Alexandra Rome for their efforts in collecting information on significant AI policy events. The AI Index would also like to acknowledge Lapo Santarlasci for leading the analysis of AI public spending and U.S. grant-related AI spending.

Global AI Mentions

For mentions of AI in AI-related legislative proceedings around the world, the AI Index performed searches for the keyword "artificial intelligence," in respective languages, on the websites of congresses or parliaments in 75 geographic areas, usually under sections named "minutes," "hansard," etc. Mentions were counted by session, so multiple mentions of "artificial intelligence" in the same legislative session counted as one mention. The AI Index team surveyed the following databases:

Andorra, Armenia, Australia, Azerbaijan, Barbados, Belgium, Bermuda, Brazil, Canada, Cayman Islands, China,¹ Czech Republic, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Fiji, Finland, France, Germany, Gibraltar, Greece, Hong Kong, Iceland, India, Ireland, Isle of Man, Italy, Japan, Kenya, Kosovo, Latvia, Lesotho, Liechtenstein, Luxembourg, Macao SAR, China, Madagascar, Malaysia, Maldives, Malta, Mauritius, Mexico, Moldova, Netherlands, New Zealand, Northern Mariana Islands, Norway, Pakistan, Panama, Papua New Guinea, Philippines, Poland, Portugal, Romania, Russia, San Marino, Seychelles, Sierra Leone, Singapore, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Tanzania, Trinidad and Tobago, Ukraine, United Kingdom, United States, Uruguay, Zambia, Zimbabwe

Global Legislation Records on Al

For Al-related bills passed into laws, the Al Index performed searches for the keyword "artificial intelligence," in respective languages and in the full text of bills, on the websites of congresses or parliaments in 116 geographic areas. Note that only laws passed by state-level legislative bodies and signed into law (e.g., by presidents or received royal assent) from 2016 to 2024 are included. Laws that were approved but then repealed are not included in the analysis. For laws where Al-related provisions were added or amended after initial enactment, the Al Index uses the year of inclusion rather than the original passage year, when relevant. Future Al Index reports hope to include analysis on other types of legal documents, such as regulations and standards, adopted by state- or supranational-level legislative bodies, government agencies, etc.

The Al Index team surveyed databases for the following geographic areas:

Algeria, Andorra, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, The Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Bermuda, Bhutan, Bolivia, Brazil, Brunei, Bulgaria, Cameroon, Canada, Chile, China, Croatia, Cuba, Curacao, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Fiji, Finland, France, Germany, Gibraltar, Greece, Greenland, Grenada, Guam, Guatemala, Guyana, Hong Kong, Hungary, Iceland, India, Iraq, Ireland, Isle of Man, Israel, Italy, Jamaica, Japan, Kazakhstan, Kenya, Kiribati, Republic of Korea, Kosovo, Kyrgyz Republic, Latvia, Liechtenstein, Lithuania, Luxembourg, Macao SAR China, Malawi, Malaysia, Malta, Mauritius, Mexico, Monaco, Montenegro, Morocco, Mozambique, Nauru, Netherlands, New Zealand, Northern Marina Islands, Norway, Panama, Philippines, Poland, Portugal, Romania, Russia, Samoa, Saudi Arabia, Serbia, Seychelles, Sierra Leone, Singapore,

¹ The National People's Congress is held once per year and does not provide full legislative proceedings. Hence, the counts included in the analysis searched mentions of "artificial intelligence" in the only public document released from the congressional meetings, the Report on the Work of the Government, delivered by the premier.



Slovak Republic, Slovenia, South Africa, Spain, St. Kitts and Nevis, Suriname, Sweden, Switzerland, Tajikistan, Tanzania, Togo, Tongo, Turkey, Tuvalu, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Vietnam, Yemen, Zambia, Zimbabwe

US State-Level AI Legislation

For Al-related bills passed into law, the Al Index performed searches for the keyword "artificial intelligence" in the full text of bills on the websites of all 50 U.S. states. Bills are only counted as passed into law if the keyword appears in the final version of the bill, not just the introduced version. Note that only laws passed from 2015 to 2024 are included. The count for proposed laws includes both laws that were proposed that were passed and laws that were proposed that have not been passed yet, or are now inactive. The Al Index team surveyed the following databases:

Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

For a more thorough review, the AI Index also included AIrelated state laws listed on the <u>Multistate AI state legislation</u> <u>tracker</u>, even if they did not specifically reference "artificial intelligence" as a keyword.

US AI Regulation

This section examines AI-related regulations enacted by U.S. regulatory agencies from 2016 to 2024, analyzing the total number of regulations and their originating agencies. To compile this data, the AI Index conducted a keyword search for "artificial intelligence" on the Federal Register, a comprehensive repository of government documents drawn from over 436 agencies and nearly every branch of the U.S. government.

US Committee Mentions

To research trends on the United States' committee mentions of AI, the following search was conducted:

Website: <u>Congress.gov</u> Keyword: artificial intelligence Filters: Committee Reports

Public Investment in Al

The Al Index analyzed government Al spending across European countries and the United States, focusing on regions where data is more accessible. It is important to note that this analysis may not fully represent all countries or regions, as the availability and quality of data can vary significantly. Additionally, while this analysis includes data on government contracts from various countries, it only covers grant-level spending for the United States. This discrepancy is the result of challenges in collecting comparable grant data from other countries and regions, such as the European Union and China. Nevertheless, the U.S. case illustrates that a substantial portion of government spending on AI occurs through grants. Coverage will expand in future iterations of the Al Index as more data becomes available, but discrepancies and gaps in the existing data may affect the comprehensiveness and accuracy of the findings.

Data Sources

For European countries, the AI Index collected public tender data from Tenders Electronic Daily (TED) (Publications Office of the European Union, 2024)—the online supplement to the official journal of the EU dedicated to European public procurement. While contracts are available in various formats, the most detailed data comes from bulk XML downloads, which include comprehensive information on tendering procedures, issuing entities, awarded contractors, lot values, descriptions, award dates, and common procurement vocabulary (CPV) codes. TED publication is governed by EU law thresholds: Tenders above specific monetary values, deemed of cross-border interest, must be published on TED. However, some countries also report below-threshold procurements, leading to variations in coverage across countries.

Chapter 6: Policy and Governance Appendix



For the United Kingdom, data sources include TED, Find a Tender, Contracts Finder, and Contracts Finder Archive. Data from Scotland and Wales were accessed via the APIs of their procurement websites, while Northern Ireland does not offer this service, necessitating its exclusion from the analysis and potentially leading to an underestimation of public investments in AI for the U.K. Due to API limitations restricting historical data access, the AI Index utilized the Open Contracting Partnership's data registry via Kingfisher Collect to obtain comprehensive data for Scotland and Wales.

Data for the United States was sourced from the publicly accessible <u>USAspending</u> platform, an official repository that facilitates bulk downloads of information related to contract award notices and grant data. While this dataset encompasses a longer time frame than the TED dataset, it is important to note that data quality can vary. Additionally, a study by the U.S. Government Accountability Office (<u>GAO</u>, <u>2023</u>) found that 49 agencies, including 25 in the executive branch, did not report data to USAspending, accounting for over \$5 billion in net outlays for fiscal year 2022.

Data Processing

Processing TED data posed significant challenges due to inconsistent storage of contract descriptions, which varied by XML tag names based on release time and procurement type. Some files contained aggregated descriptions while others detailed each awarded contract lot. To capture comprehensive information, the main descriptions of each competition call were combined with partial descriptions when available.

The linguistic diversity in data from different countries required translation of all texts into English using the <u>deeptranslator</u> tool and the Google Translator engine. Post-translation, tender texts were processed using natural language processing (NLP) techniques. These included the removal of stop words and special characters, part-of-speech (POS) tagging to retain key grammatical categories, lowercase conversion, lemmatization, and replacement of numerical measures with a <NUM> tag.

For ease of comparison, all monetary amounts were converted to U.S. dollars and adjusted for price level differences using the <u>purchasing power parities (PPP)</u> index.

Classification

Classifying Al-related contracts and grants was achieved using full-text search with regular expressions. An Al dictionary was compiled by generating Al-related expressions and incorporating "core" expressions from the Yamashita et al. (2021) vocabulary. Additionally, a Word2Vec model expanded the dictionary with cosine-similar terms for each baseline expression that were manually reviewed and included in the final vocabulary. This process provided keywords and co-occurrence patterns crucial for identifying Al content.

The classification followed a multistep approach. Initially, regular expression (regex) matching identified AI terms within contract and grant awards. These documents were then categorized as either "non AI-related" or "AI-related." To validate AI-related matches, BERTopic model and pretrained DeBERTA transformer were employed to assess probability scores for specific AI-related topics. Awards with relevance scores below 20% underwent manual review, while those with higher scores were confirmed as AI-related. To ensure additional accuracy, all high-value tenders were also manually reviewed.