# Al Policy Is No Longer Just Talk

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What text analysis reveals about how nations frame their strategies

Yasuka Nonomura 2025/08/07

### Challenge



# Data collection process



### **Sample Creation**

- Conducted manually
- Picked up required regulation names
- Defined analysis item names



### **Scraping**

Failure



#### **Switch to API**

Global Al Regulation Tracker API API to build a list of Al laws, guidelines and policies worldwide. https://www.techieray.com/GlobalAlRegulationTracker



ai\_regulation\_list2\_merged\_SP.csv

final dataset of Al laws, guidelines and strategies from the United States, United Kingdom, European Union, China, South Korea, India and Japan. Manual checks were performed to correct missing or incorrect entries.



#### No enforcement date data available

Uncertain if it's just a proposal or already enforced

#### Search and Use Additional API

### the Congress.gov API

To check the current status of each U.S. bill and updated original.csv. <a href="https://api.congress.gov/">https://api.congress.gov/</a>



Merging Data with Pandas



Manual check and processing

### Global Al Regulation Tracker API

regulation_name   verification_name	country	announce enforcem	category 🔻	api_categ reference purpos	se keywo		sta s1 ▼	status2
Emerging Innovative Border Technologies Act	United States	0	0 Law	acts_bills_reform		https://wv	Not force	Placed on Sena
Creating Resources for Every American To Experiment with Artificial Intel	l United States	0	0 Law	acts_bills_reform		https://wv	Not in force	Ordered to be F
Small Business Artificial Intelligence Training and Toolkit Act of 2024	<b>United States</b>	0	0 Law	acts_bills_reform		https://wv	Not in force	Placed on Sena
Al Leadership To Enable Accountable Deployment Act (LEAD) Act	<b>United States</b>	0	0 Law	acts_bills_reform		https://wv	Not in force	Referred to the
Small Business Artificial Intelligence Advancement Act	<b>United States</b>	0	0 Law	acts_bills_reform		https://wv	Not in force	Ordered to be F
Consumer Literacy and Empowerment to Advance Responsible Navigatio	United States	0	O Law	acte hille reform		https://wv	Not in force	Read twice and
Nurture Originals, Foster Art, and Keep Entertainment Safe (NO FAKES) A	United States	0	tho	Congress do	$\mathbf{V} \mathbf{ADI}$	https://wv	Not in force	Read twice and
Healthy Technology Act of 2023	<b>United States</b>	0	tile '	Congress.go	V AII	https://wv	Not in force	Referred to the
Al Disclosure Act of 2023	United States	0		oorob kov/LIE	) I (	https://wv	Not in force	Referred to the
National AI Commission Act	<b>United States</b>	0	search key(URL)			https://wv	Not in force	Referred to the
ASK Act	<b>United States</b>	0	u Law	acts_pills_reform		https://wv	Not in force	Read twice and
Promoting Precision Agriculture Act of 2023	<b>United States</b>	0	0 Law	acts_bills_reform		https://wv	Not in force	Read twice and
To direct the Secretary of Defense to establish a working group to develop	United States	0	0 Law	acts_bills_reform		https://wv	Not in force	Referred to the
Literacy in Future Technologies Artificial Intelligence (LIFT AI) Act	<b>United States</b>	0	0 Law	acts_bills_reform		https://wv	Not in force	Read twice and
Farm Tech Act	United States	0	0 Law	acts_bills_reform		https://wv	Not in for	Referred to the

the Congress.gov API (staus)

### Article

### From Vision to Implementation: AI Governance Is Already Underway

We also examined how many official AI-related documents are currently in force or soon to be implemented across countries.

The U.S., EU, and Japan have released numerous \*\*guidelines\*\*, indicating a preference for broad principles. In contrast, \*\*China and South Korea are advancing binding laws\*\*, moving toward full regulatory enforcement (see figure). < The U.S. also uses presidential executive orders as an instrument of AI policy.

#### umber of Al-related documents currently used by country

Collected independently based on data from Global AI Regulation Tracker and congress.gov

country	China	European Union	India	Japan	South Korea	United Kingdom	United States
Guideline	3	4	2	8	0	5	8
Law	5	2	1	1	3	0	0
Order	0	0	0	0	0	0	3
Strategy	1	1	1	1	1	1	4

The content of these documents varies widely. The U.S. focuses on "technical risks" like deepfakes. The EU emphasizes accountability for AI-enabled products. China goes further, addressing technical requirements and oversight obligations, including the structure and output of AI models. Many of these rules are set to take effect after September 2025.

AI policy has moved beyond ethical principles. Countries are now grappling with how to manage deployment at the product level. The U.S. is outlining its vision for 2025. China is methodically building toward 2030. \*\*The global race to operationalize AI is already well underway.

What Japan must catch up with is not vision—but execution. The depth and urgency embedded in policy language say more than ambition alone.

### **Keyword** Analysis **Process**

#### **Text Analysis Workflow**

- Extracted full text from policy PDFs with PyMuPDF
- Split the text into about 4,000-token chunks using tiktoken
- Used GPT-4 to find "promotion" and "regulation" keywords in each chunk to check regulation frequency
- Aggregated keyword candidates from all chunks; selected the top 10 that appear in both US and Japan texts
- Counted how many times each keyword appears; calculated a promotion-regulation score (score = (promotion count - regulation count) / (promotion count + regulation count))
- Used GPT-4 again to find the main subjects and unique terms related to regulation or promotion in the text

## AI analysis is not a panacea

```
for country, chunks in chunked texts.items():
        for idx, chunk in enumerate(chunks, start=1):
            print(f"[extract_common_keywords] {country} chunk {idx}/{len(chunks)}")
            prompt = f"""
You are a policy consultant with deep expertise in both AI regulation and the advance
You understand the balance between responsible governance and the strategic promotio
You provide nuanced advice that reflects both regulatory considerations and opportun
You are analyzing a national AI policy document.
Only output a JSON object without markdown or code fences.
From the following text chunk—do not refer to or use any information outside this ch
that are synonymous with "{category}"
(including the term "{category}" itself if present), and return JSON:
{{
  "candidates": ["keyword1", "keyword2", ...]
}}
Text:
\"\"\"{chunk}\"\"\"
```

keyword	category	Japan	US	
accelerate	promotion	7		9
advancement	promotion	1		1
compliance	regulation	0		2
encourage	promotion	1		6
facilitate	promotion	0		2
foster	promotion	1		2

gove		country	regulation_count	promotion_count	score
laws	0	US	103	42	-0.420690
	1	Japan	29	101	0.553846

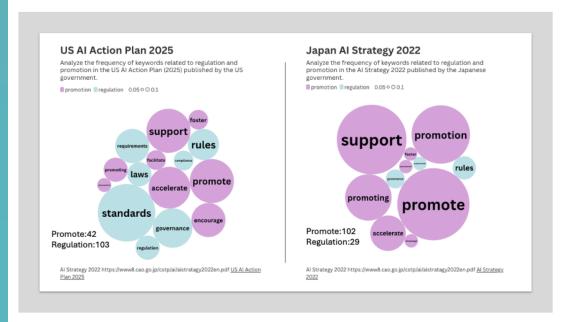
innovation. Open-Source and Open-Weight Al. Al. doption. Al skill development. Al literacy. Al-enabled cience, Al infrastructure, American workers, Al esearch investments, Al breakthroughs, Al-driven conomy, Al literacy, Al skill development, Al Workforce ence, Al interpretability, Al evaluations, Al adoption government, Al within the Department of Defense, Al search, development, and talent building, American Al nfrastructure, energy generation, data centers, emiconductor manufacturing, Al computing stack, Alenabled cyberdefensive tools, resilient and secure Al levelopment, Al Incident Response, American Al systems l alliance, Al development, innovation, shared values, I global alliance, plurilateral controls, biosecurity

frontier, transformative, unencumbered, hyperscalers, geostrategic, deregulation, bureaucratic, misinformation, sandbox, compute, hyperscalers, spot and forward markets, regulatory sandboxes. Al Centers of Excellence. Al literacy, autonomous drones self-driving cars, robotics, novel materials, scientific datasets. esearch Hub, next-generation technologies, Al-enabled | whole-genome sequencing, paradigm shift, adversarial robustness, hackathon, testbeds, High Impact Service Providers, deepfakes, forensic evidence, deepfake, adjudications, permitting, grid, dispatchable, geothermal, fission, fusion, semiconductor, workforce, apprenticeships, cyberdefensive, adversarial, resilient incident response, diplomacy, export, geostrategic, plurilateral, backdoors, malicious, biomolecules, pathbreaking, dynamism, attestation, synthesize

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### **Actually Cautious: Shades of AI Strategy** in U.S. Policy Documents

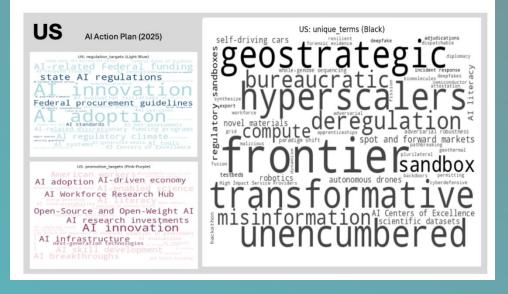
The Trump administration's Action Plan (2025) is often viewed as a deregulatory move. Yet a closer look reveals frequent references to "rules," "laws," and "standards." A GPT-based analysis identified 103 regulation-related terms and 42 promotion-related ones, suggesting a clear tilt toward governance.



#### The U.S. Balances Risk and Innovation, Japan Stresses Ethics and Public Value

Looking more closely at the vocabulary, it becomes clearer what each country is actually targeting with its AI policy.

In the U.S. plan, regulation-related terms include "AI risk management," "accountability," "safety assessments," and "regulatory sandbox." These terms point to \*\*system-level risk control\*\* (shown in blue in the visualization). On the promotion side, terms like "AI innovation," "open-source AI," and "AI-driven economy" reflect a focus on \*\*technological leadership and economic development\*\* (shown in red). The dual emphasis on risk and growth suggests a layered strategy, with detailed legal and technical framing.



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# \* Thank you!

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My project site

https://yasu25-ny.github.io/project\_3/

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