

AI Policy Is No Longer Just Talk

What text analysis reveals about how nations frame
their strategies

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2025/08/07

Challenge

• + API & Pandas • +

Data collection process

Sample Creation

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



Scraping

Failure



Switch to API

Global AI Regulation Tracker API

API to build a list of AI laws, guidelines and policies worldwide.

<https://www.techieray.com/GlobalAIRegulationTracker>



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. <https://api.congress.gov/>



Merging Data with Pandas



Manual check and processing

Goal

ai_regulation_list2_merged_SP.csv

final dataset of AI 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.

Dataset

Global AI Regulation Tracker API

regulation_name	country	announcement	enforcement	category	api_category	reference	purpose	keyword	status1	status2
Emerging Innovative Border Technologies Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1011			Not in force	Placed on Senate calendar
Creating Resources for Every American To Experiment with Artificial Intelligence Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1012			Not in force	Ordered to be reported
Small Business Artificial Intelligence Training and Toolkit Act of 2024	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1013			Not in force	Placed on Senate calendar
AI Leadership To Enable Accountable Deployment Act (LEAD) Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1014			Not in force	Referred to the committee
Small Business Artificial Intelligence Advancement Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1015			Not in force	Ordered to be reported
Consumer Literacy and Empowerment to Advance Responsible Navigation Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1016			Not in force	Read twice and referred to the committee
Nurture Originals, Foster Art, and Keep Entertainment Safe (NO FAKES) Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1017			Not in force	Read twice and referred to the committee
Healthy Technology Act of 2023	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1018			Not in force	Referred to the committee
AI Disclosure Act of 2023	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1019			Not in force	Referred to the committee
National AI Commission Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1020			Not in force	Referred to the committee
ASK Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1021			Not in force	Read twice and referred to the committee
Promoting Precision Agriculture Act of 2023	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1022			Not in force	Read twice and referred to the committee
To direct the Secretary of Defense to establish a working group to develop a strategy for the use of artificial intelligence in the Department of Defense	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1023			Not in force	Referred to the committee
Literacy in Future Technologies Artificial Intelligence (LIFT AI) Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1024			Not in force	Read twice and referred to the committee
Farm Tech Act	United States	0	0	Law	acts_bills_reform	https://www.congress.gov/bills/118/1025			Not in force	Referred to the committee

the Congress.gov API
search key(URL)

the Congress.gov API (status)

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.

Number of AI-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

Table: yasuka nonomura • [Get the data](#) • Created with [Datawrapper](#)

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

- The left side shows “regulation” and “promotion” keywords chosen by AI, while the right side displays main subjects and unique keywords from each document.
- AI generated different keywords each time, making scores unreliable and often arbitrary—so I gave up on reliable scoring and could not achieve my goal of removing human bias.

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

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

```
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 advancement of AI. You understand the balance between responsible governance and the strategic promotion of AI. You provide nuanced advice that reflects both regulatory considerations and opportunities for innovation. You are analyzing a national AI policy document. Only output a JSON object without markdown or code fences.

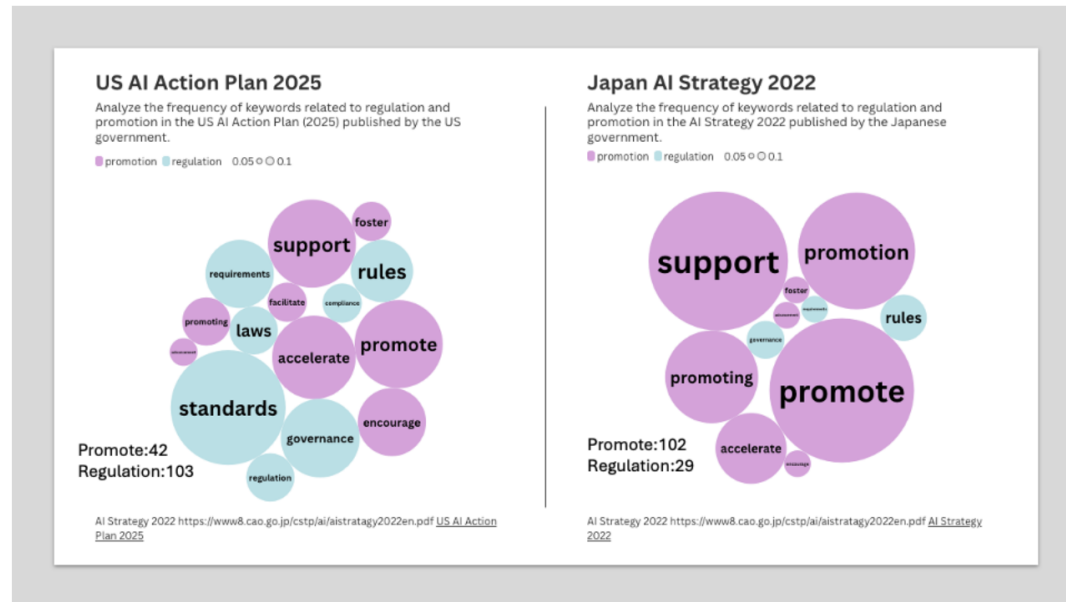
From the following text chunk—do not refer to or use any information outside this chunk. Identify keywords that are synonymous with "{category}" (including the term "{category}" itself if present), and return JSON:

```
{{
  "candidates": ["keyword1", "keyword2", ...]
}}
```

```
Text:
\"\"\"{chunk}\"\"\"
"""
```

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.

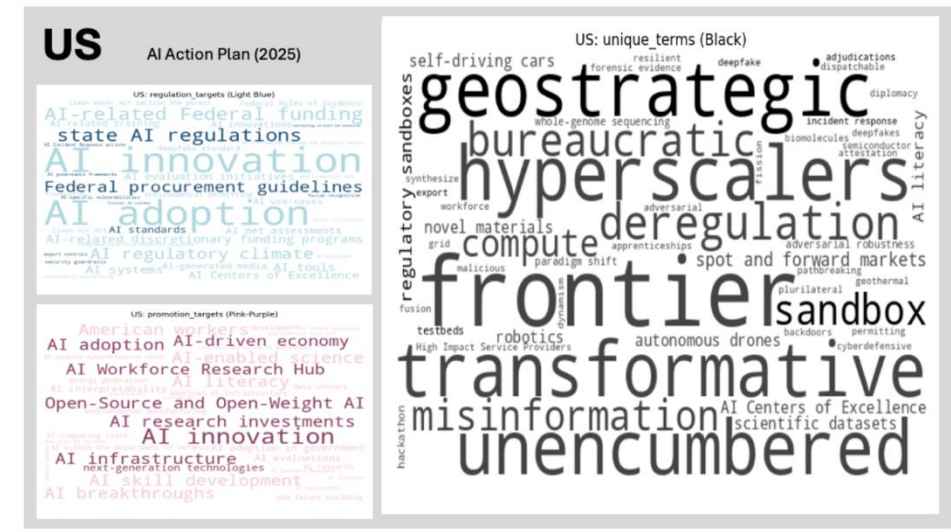


Key words and bubble maps for regulation and promotion (results nonexclusive). Created with

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.





Thank you !



My project site

https://yasu25-ny.github.io/project_3/

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