Evaluating the U.S. Legislative Landscape on AI and Automated Decision Making

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Introduction

Since the launch of ChatGPT in November 2022, there has been a surge of concerns over AI risks and legislative activity in the U.S. In the past year alone, there have been 340 draft state bills and 65 draft federal bills proposed, as of March 2024, addressing AI governance. These bills were created to implement checks against potential AI harms while also wielding the technology for domestic operations, from healthcare to transportation to military applications. While most analyses of the AI legislative landscape to date have been descriptive, we are building a scorecard to evaluate the policy effectiveness of these proposals, aiming to shed light on the U.S. legislative environment at the state and federal levels to regulate AI and automated decision making.

To determine how mature and robust bills are in its approach to AI regulation, we have decided to focus on the categories including accountability and bias, privacy, institution, labor force, and disinformation. By integrating metric-scoring with results from data collection and NLP topic modeling, we will develop visualization for bill distribution across states and data analysis accordingly. Ultimately, this project aims to inform a scorecard that stakeholders can leverage to compare bills based on a systematic scoring system, and a cumulative report on the current landscape of state and federal AI legislation in the context of the United States.

Methodology

Scorecard Development
Each bill was categorized based on its relevance to distinct thematic domains (e.g., privacy, bias, etc.). The categorization process aimed to ensure a comprehensive assessment by assigning bills to specific categories, each accompanied by its own set of tailored questions (binary Y/N questions) to capture the key considerations within that domain. The guide for scorers is currently in progress, which will serve as a comprehensive instruction manual for bill scoring.

Data Analysis
For data collection, we collected bill texts and metadata from the past year from Plural Policy and Open States with a semi-automatic data collection pipeline. We then performed an evaluation of zero-shot topic modeling by taking the bill text documents and separating them into different clusters based on our areas of focus. We then assigned probabilities for whether a text chunk belonged to a specific cluster. After this, we took the aggregate of the probabilities to assign a bill to one of our five clusters. Lastly, we developed the visualizations for bill distribution across states.
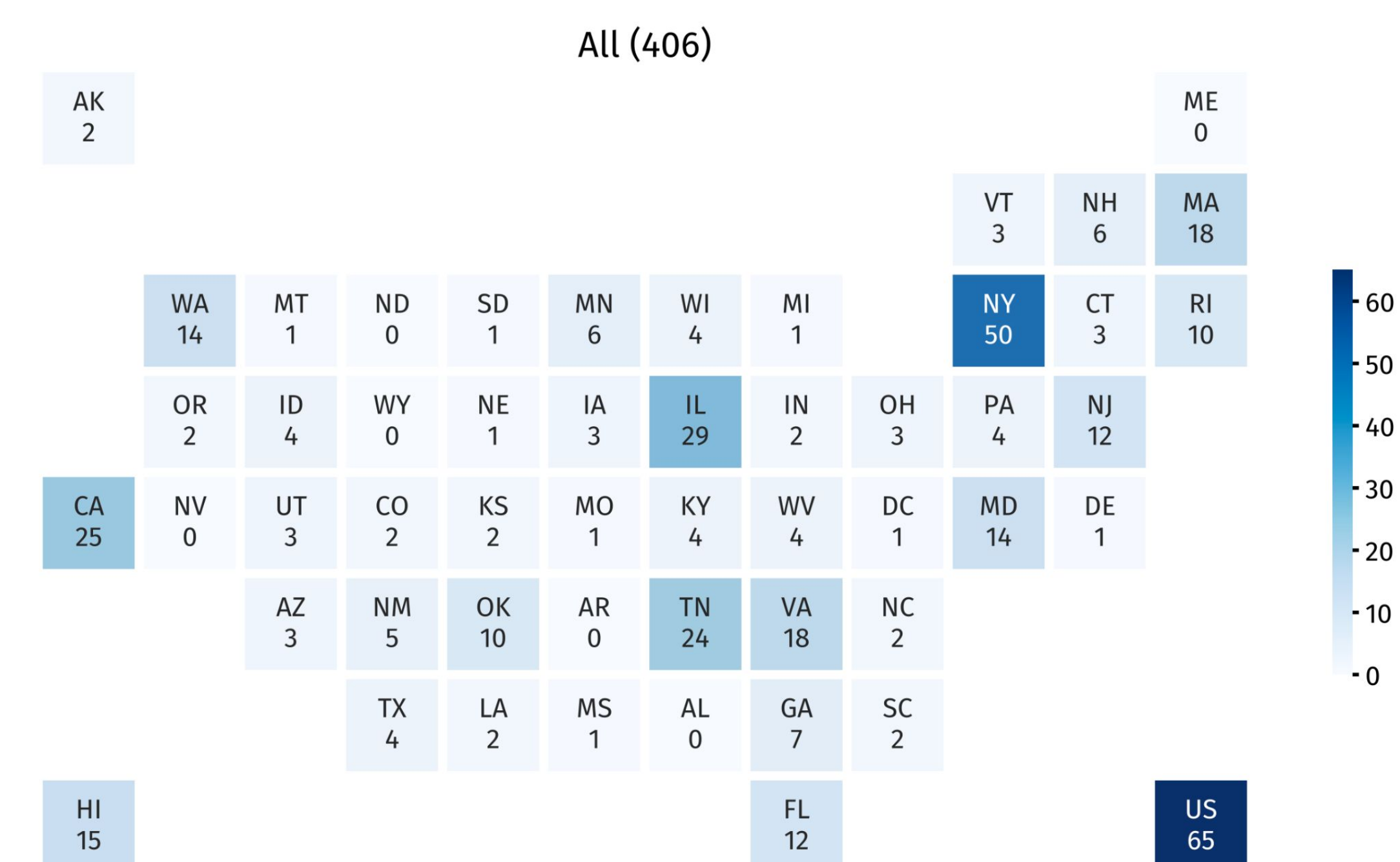

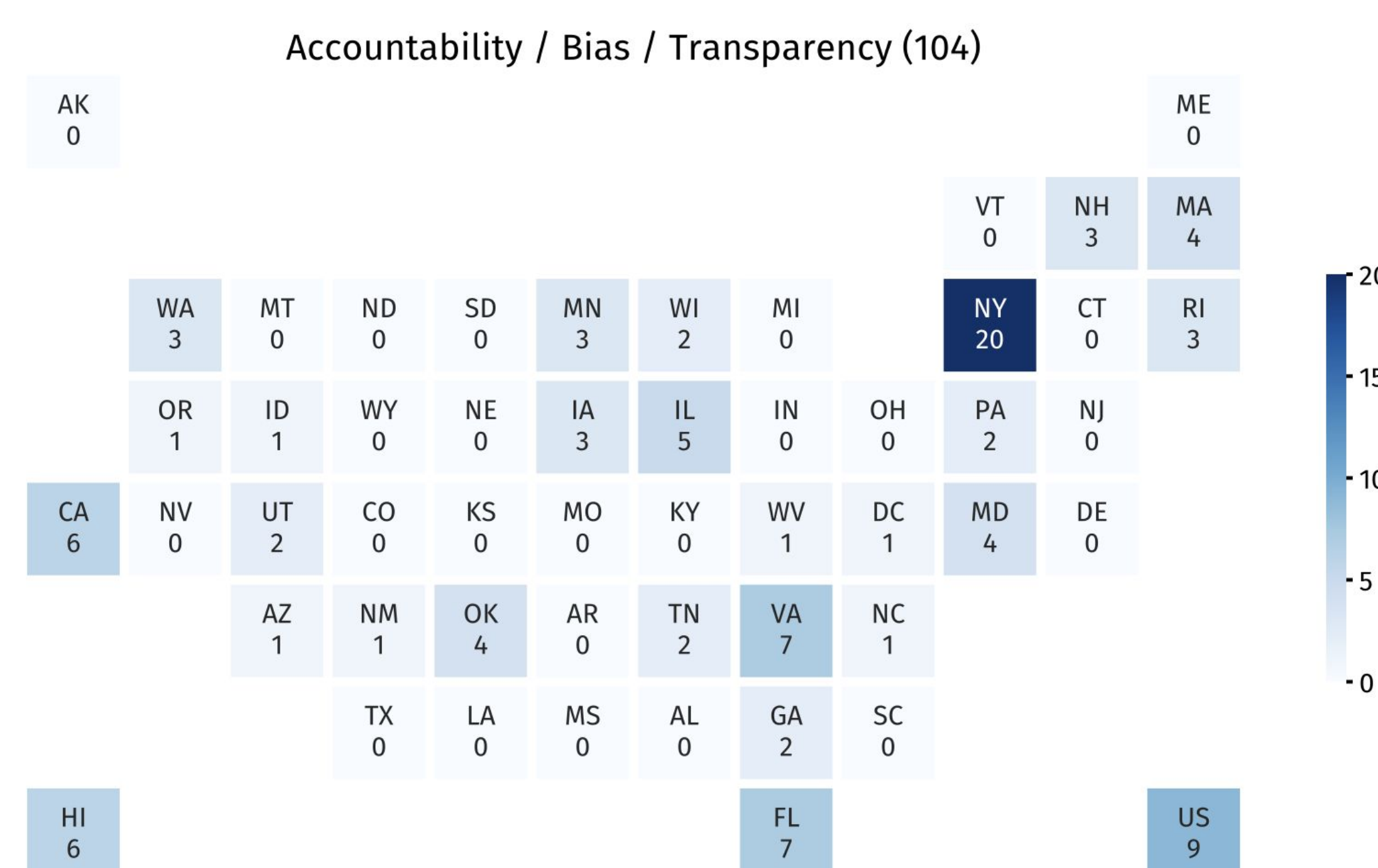**Fig. 1.1**: Map of all bills clusters introduced by state

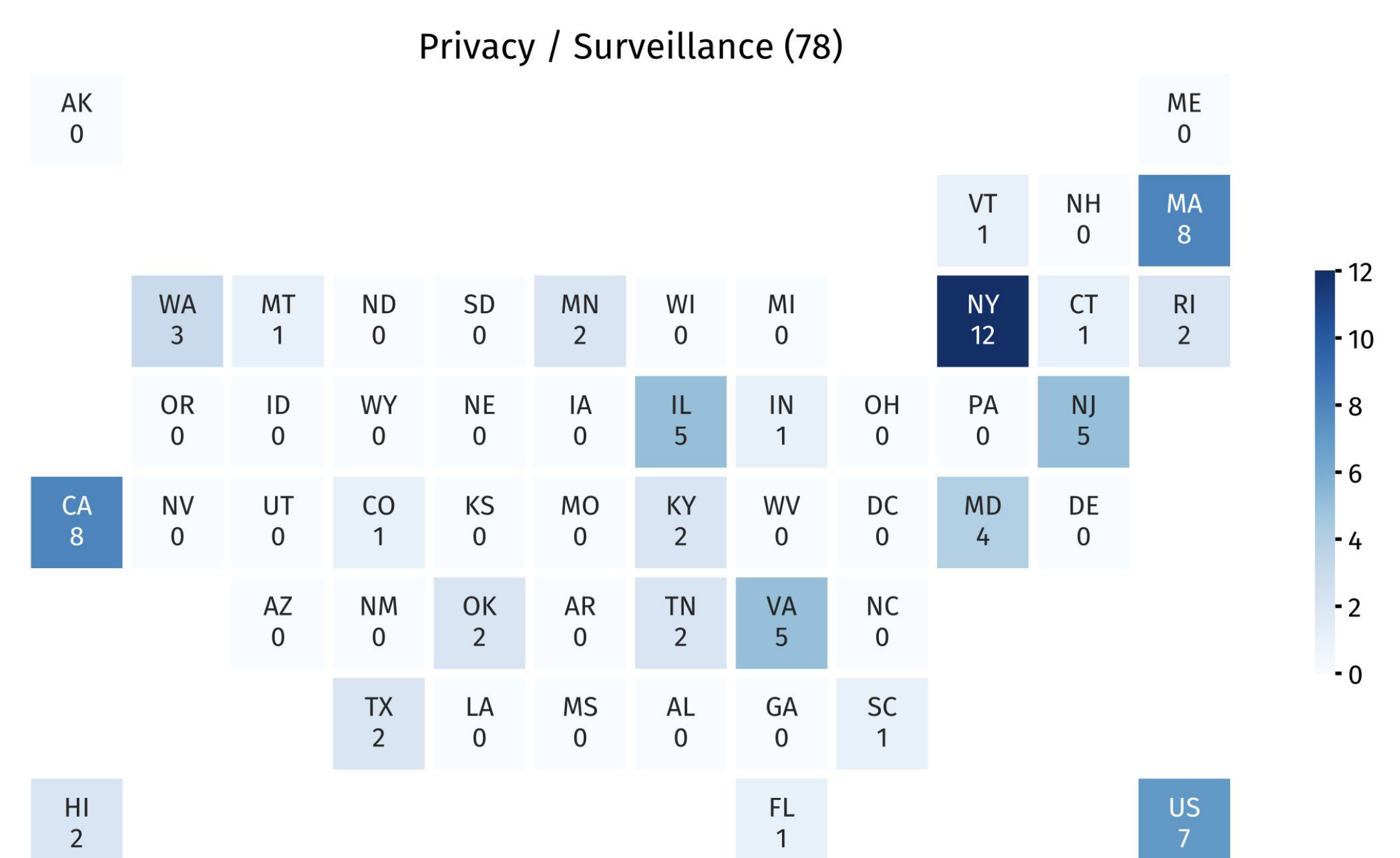**Fig. 1.2**: Map of Accountability/Bias/Transparency state bills

Fig. 1.3: Map of Privacy state bills

Results

	NY	IL	CA	TN	MA	VA	HI	MD	WA	FL	NJ
All	50	29	25	24	18	18	15	14	14	12	12
Accountability, Transparency & Bias	20	5	6	2	4	7	6	4	3	7	0
Institutional Development	0	1	1	6	2	3	0	4	4	3	0
Labor Force	1	0	0	0	0	0	0	1	1	0	0
Privacy	12	5	8	2	8	5	2	4	3	1	5
Synthetic Content & Deepfakes	15	13	5	12	3	2	4	0	1	1	4

Fig. 2.1: Top 11 states by ai legislation bills introduced

Data sensitivity	Does the bill provide a definition for **sensitive data** or provide examples, i.e., health data, biometrics, law enforcement data, and location data?	Yes or No
	Does the bill have specific requirements for handling **sensitive data**?	Yes or No
Enforcement	Does the bill **enforce** privacy protections via Attorney General authority or the creation of a state privacy agency?	Yes or No
Oversight	Is personal data subject to **oversight** by a government institution or independent third party?	Yes or No

Fig. 2.2: Sample of scorecard questions from the Privacy category

Conclusions

Due to limited space, we've decided to include our findings on **Accountability, Transparency & Bias** and **Privacy** as demonstration.

From the matrix, we notice that New York had the highest frequency of bills in the category of **Accountability, Transparency & Bias**, jointly followed by Virginia and Florida. Common methods for ensuring accountability include **auditing requirements** and **impact and risk assessments**. While an audit suggests an external review completed by a third party, risk (pre-deployment) and impact (post-deployment) assessment refers to the internal evaluation of an AI system. Regarding the issue of **transparency**, many bills proposed **reporting requirements** for various stakeholders (government agencies, departments, the public), which should include information such as training data sets used for algorithms.

In the **Privacy** category, New York had the highest frequency of bills, followed by California and Massachusetts. Often referencing or building upon existing generalized privacy legislation, AI-specific privacy bills largely called for **impact assessments**, **risk-based frameworks**, and protections for consumers to opt out of targeted advertising and profiling. Privacy-preserving processes were often undetailed, but many advocated for practices on how data should be **accessed**, **collected**, **shared and transferred**, **minimized**, and **deleted**. Bills pushed for privacy protections during the design and development processes, particularly for frontier models, and outlined specific designations for **sensitive data**. Many of the bills also established **standards** or asserted the ethical need for privacy rights, stressing the potential risks of AI.

Future Work

We aim to continue refining the scorecard and the guide for scorers to advance the bill scoring methodology. After developing the scorecard, we will utilize human and automated scorers to evaluate bills based on criteria specific to their category cluster. Furthermore, we aim to create visualizations that capture other metrics, such as the evolution of bill language and structure, over time. This process will enable policymakers, journalists, and other stakeholders to gauge the effectiveness of a bill in addressing relevant issues.

Acknowledgements