

Harnessing Twitter Data for Real-Time Topic Detection and Policy Formulation in AI-Driven Democratic Governance

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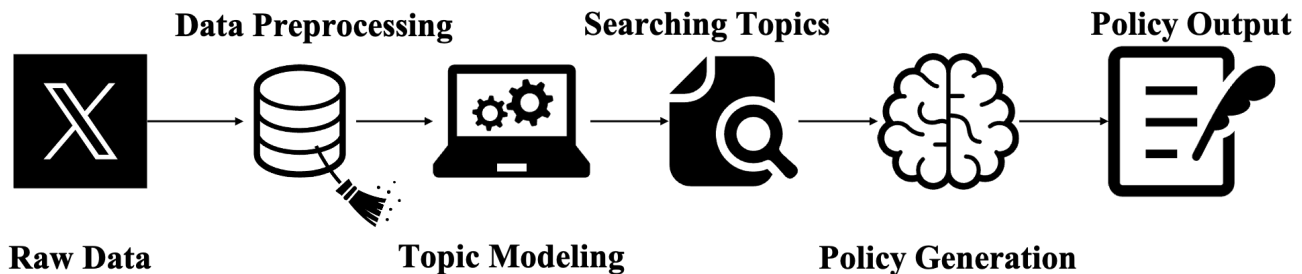


Figure 1: Methodological framework illustrating the sequential steps of policy generation employed to analyze Twitter dataset surrounding the 2024 U.S. Presidential Election.

Abstract

In contemporary democratic societies, understanding public sentiment in real-time is essential for effective governance. Traditional public opinion polling methods, despite their value, are often hindered by delays, high costs, and limited sample sizes. This study leverages the vast and dynamic nature of Twitter data to overcome these limitations, focusing on the 2024 U.S. Presidential Election as a case for analyzing political discourse. Utilizing a dataset of tweets, we employ Natural Language Processing (NLP) techniques for topic modeling and sentiment analysis. Our analysis identifies ten key topics. To translate these insights into actionable policy recommendations, we integrate a Large Language Model (LLM), specifically ChatGPT, facilitating the generation of policies aligned with democratic governance principles. The findings demonstrate the potential of AI-driven NLP methodologies to bridge the gap between real-time public discourse and policy-making, offering policymakers timely and relevant insights that enhance responsiveness and public trust. This study underscores the efficacy of integrating advanced computational techniques with social media analytics to inform and strengthen democratic institutions through data-driven decision-making. The codebase for this project is publicly accessible at [this link](#).

1 Introduction

In contemporary democratic societies, the ability to swiftly and accurately gauge public sentiment is paramount for effective governance. Traditional methods of public opinion polling, while valuable, often suffer from limitations such as time delays, high costs, and restricted sample sizes. In contrast, social media platforms like Twitter offer an unprecedented opportunity to access real-time, large-scale public discourse. The vast and dynamic nature of Twitter data provides rich insights into public opinions, emerging topics, and the underlying sentiments that shape societal narratives.

The 2024 U.S. Presidential Election serves as a critical focal point for examining political discourse, misinformation, and voter concerns. As a pivotal event in democratic governance, understanding the nuances of public sentiment during this period is essential for policymakers aiming to craft responsive and effective policies. However, the sheer volume and velocity of Twitter data present significant challenges in extracting meaningful insights without the aid of advanced computational techniques.

Artificial Intelligence (AI), particularly Natural Language Processing (NLP), has emerged as a transformative tool in addressing these challenges. By leveraging NLP techniques, researchers can systematically process and analyze vast amounts of unstructured text data to

identify prevalent themes and sentiments. Topic modeling, for instance, enables the extraction of latent topics within a dataset, providing a structured overview of the most discussed issues. Sentiment analysis further complements this by quantifying the emotional tone associated with these topics, thereby offering a deeper understanding of public attitudes.

This study aims to harness the power of AI-driven NLP techniques to extract and analyze "hot topics" from Twitter data related to the 2024 U.S. Presidential Election. By employing Latent Dirichlet Allocation (LDA) for topic modeling and sentiment analysis tools, we identify key public concerns and sentiments expressed during the election period. Building upon these insights, we utilize a Large Language Model (LLM), specifically ChatGPT, to generate actionable policy recommendations. This integration of topic extraction, sentiment analysis, and AI-driven policy formulation exemplifies a scalable framework for enhancing democratic governance through data-driven decision-making.

The significance of this research lies in its potential to bridge the gap between real-time public discourse and policy-making processes. By providing policymakers with timely and relevant insights derived from social media analytics, this approach facilitates the creation of policies that are more attuned to the needs and sentiments of the populace. Furthermore, the transparency and responsiveness fostered by this methodology contribute to increased public trust and engagement in democratic institutions.

In summary, this study demonstrates the efficacy of integrating advanced NLP techniques with AI-driven models to transform raw social media data into meaningful policy insights. By focusing on the 2024 U.S. Presidential Election, we showcase how real-time analysis of public sentiment can inform and enhance the policy-making process, thereby strengthening the foundations of democratic governance.

2 Data & Methods

2.1 Dataset Choice and Sample Extraction

We utilized the **Twitter Dataset** provided by the HUMANS Lab, comprising a comprehensive collection of tweets focused on societal and political interactions surrounding the 2024 U.S. Presidential Election.

2.2 Data Preprocessing

The preprocessing pipeline is a critical component of our methodology, ensuring that the raw Twitter data is transformed into a clean and analyzable format. The preprocessing steps are meticulously designed to enhance data quality, reduce noise, and prepare the dataset for effective topic modeling and sentiment analysis. The detailed

steps are as follows:

2.2.1 Data Loading and Initial Filtering

The raw Twitter data is stored in compressed CSV files ('.csv.gz') across multiple directories. To efficiently handle large volumes of data, we implemented a loading mechanism using the **pandas** library. The function **load_and_filter_data** performs the following operations:

1. **Selecting Relevant Columns:** Only essential columns are retained to streamline the dataset. These columns include:
 - **text:** The content of the tweet.
 - **lang:** Language of the tweet.
 - **replyCount, retweetCount, likeCount, quoteCount:** Engagement metrics indicating the tweet's popularity.
2. **Data Type Conversion:** Engagement metrics are converted to numeric types, with non-convertible values filled as zeros to maintain consistency.
3. **Language Filtering:** Only tweets in English (**lang** = "en") are retained to focus on a specific linguistic demographic.
4. **Engagement Filtering:** Tweets with any engagement metric (**replyCount, retweetCount, likeCount, quoteCount**) equal to or exceeding 5 are retained. This threshold ensures that only tweets with meaningful interactions are considered, reducing the impact of spam or low-engagement content.

The filtered chunks are concatenated into a single **DataFrame**, **df_filtered**, which forms the basis for subsequent preprocessing steps.

2.2.2 Text Cleaning

Raw tweet text often contains various elements that can hinder effective analysis. The **clean_text** function systematically removes these elements:

- **Lowercasing:** All text is converted to lowercase to maintain consistency and reduce the dimensionality of the text data.
- **URL Removal:** URLs are stripped out using regular expressions (**re.sub(r'http\$+|www\$+|https\$+', '', text)**) to eliminate external links that do not contribute to the topic analysis.
- **Mention Removal:** User mentions (e.g., **@username**) are removed to focus on the content rather than the individuals involved.

- **Digit Removal:** Numerical values are stripped out to avoid skewing the analysis with irrelevant numerical data.
- **Punctuation Removal:** All punctuation marks are removed to simplify the text and focus on meaningful words.
- **Whitespace Normalization:** Excessive whitespace is reduced to single spaces, and leading/trailing spaces are trimmed.

This cleaning process results in a new column, `clean_text`, which contains the sanitized tweet content.

2.2.3 Stopword Removal and Lemmatization

To further refine the text data, we implement stopwords removal and lemmatization:

- **Stopword Removal:** Utilizing NLTK’s standard English stopwords, supplemented with additional domain-specific terms (e.g., political figures and parties such as “biden,” “trump”), we remove common words that do not contribute to topic differentiation.
- **Lemmatization:** Using spaCy’s lemmatizer, each word in the `clean_text` is reduced to its base form. This process helps in normalizing words, ensuring that different forms of a word are treated as a single entity (e.g., “running” becomes “run”).

The lemmatization is performed efficiently using spaCy’s `nlp.pipe`, which processes the text in batches, leveraging multiple CPU cores for speed. The resulting lemmatized texts replace the original `clean_text` column, preparing the data for topic modeling.

2.2.4 Final Filtering

Post-cleaning, we perform an additional filter to exclude tweets with very short content (less than 20 characters) to ensure that only substantive tweets are analyzed. This step reduces noise and focuses the analysis on meaningful discourse.

2.3 Topic Extraction (“Hot Topics”)

With the preprocessed data, we proceed to extract key topics using Latent Dirichlet Allocation (LDA), a classical topic modeling technique. The methodology encompasses:

1. **Vectorization:** The `TfidfVectorizer` from scikit-learn is employed to convert the `clean_text` into a Document-Term Matrix (DTM). The vectorizer is configured with the following parameters:

- `max_df=0.95`: Ignores terms that appear in more than 95% of the documents, reducing the impact of overly common words.
- `min_df=10`: Ignores terms that appear in fewer than 10 documents, focusing on more significant terms.
- `stop_words='english'`: Removes English stopwords to enhance topic relevance.

2. **LDA Modeling:** The `LatentDirichletAllocation` model is instantiated with 10 topics (`n_components = 10`) and a fixed random state for reproducibility. The model is trained on the DTM to identify latent topics within the dataset.

3. **Topic Display:** The `display_topics` function iterates over each topic, extracting the top 10 keywords that define the topic. These keywords are printed and stored in a `topic_map` dictionary for further analysis.

2.3.1 Identified Topics

The following table presents the identified topics along with their top 10 keywords:

2.4 Dominant Topic Assignment & Visualization

To visualize the distribution and prominence of each topic, we perform the following steps:

1. **Dominant Topic Assignment:** Each tweet is assigned a dominant topic based on the highest topic probability in the `doc_topic_matrix`. This assignment is stored in the `topic_id` column of the DataFrame.
2. **Topic Distribution Visualization:** Using Seaborn and Matplotlib, we generate a bar chart (*Topic Distribution*) that displays the frequency of each topic within the dataset. This visualization provides a clear picture of which topics are most prevalent.
3. **Word Clouds:** For detailed word clouds of each topic, please refer to Sec. 6.3 in the Appendix.

2.5 Policy Generation Process

The policy generation process is a crucial step in translating the identified topics and public sentiments into actionable policy recommendations. This process leverages LLMs to ensure that the proposed policies are comprehensive, feasible, and aligned with democratic governance principles. The methodology encompasses the following steps:

Table 1: Identified Topics and Top Keywords

Topic	Top Keywords
1	poll,medium,people,israel,president,border,debate,thank,vote,vote
2	president,like,amp,war,covid,illegal,say,follow,election,like
3	vote,lie,like,ukraine,bad,inflation,president,america,court,say
4	new,people,vote,president,press,tax,news,good,president,people
5	voter,say,say,administration,say,pay,watch,patriot,hunter,think
6	election,know,think,say,attempt,bidenharris,interview,great,rt,know
7	state,make,president,gaza,putin,year,rt,day,ballot,woman
8	democratic,think,good,support,conference,administration,time,god,supreme,man
9	convention,post,make,russia,know,price,step,love,say,want
10	candidate,right,country,genocide,make,money,question,president,judge,black

2.5.1 LLM-Based Targeted Keyword Search

A targeted search is conducted to gather recent data and reports on public sentiment related to specific keywords identified from the topic extraction phase. This search utilizes LLM-based searching services such as Gemini Deep Research and Perplexity to ensure comprehensive and up-to-date information retrieval.

1. **Keyword Identification:** Keywords relevant to each identified topic (e.g., “israel”, “war”, “administration”, “ukraine”, “harris”, “policy”, “president”, “inflation”, “say”, “amp”) are selected to focus the search.
2. **Data Gathering:** Using the identified keywords, the LLM-based search services retrieve recent articles, reports, and public opinion data that provide context and depth to the public sentiment surrounding each keyword.
3. **Compilation of Search Results:** The gathered information is compiled into a coherent input (`INPUT_SEARCH_RESULT`) that serves as additional context for policy generation.

2.5.2 Policy Generation Using ChatGPT

Leveraging the compiled search results, ChatGPT is employed to formulate policy proposals. The process involves crafting a structured prompt that guides the LLM to produce relevant and actionable policies.

1. **Prompt Construction:** A detailed prompt is designed to define the role, provide topic summaries, include additional context, and outline specific tasks for policy formulation. The prompt ensures that the generated policies are aligned with the objectives of democratic governance and societal well-being.
2. **Role Definition:** The LLM is assigned the role of a seasoned policy advisor with expertise in democratic governance, international relations, and economic policy formulation.

3. **Topic Summary and Context:** Keywords and additional context from the targeted search are provided to give the LLM a comprehensive understanding of the public concerns and sentiments.

4. **Task Specification:** The LLM is instructed to summarize key public concerns, identify unaddressed areas, propose actionable policy measures, and outline implementation strategies.

2.5.3 Example Prompt

Figure 3 and Figure 4 are examples of the prompts used for policy generation.

3 Results

The analysis of the Twitter dataset through topic modeling and sentiment analysis identified several prominent themes reflecting public concerns ahead of the 2024 U.S. Presidential Election. Topic 1, Topic 2 and Topic 3 are not policy related. Therefore, We employ Topic 6. The themes pertain to border security and illegal immigration, inflation and economic challenges, and taxation and financial policies. This section explores these key themes, examines the associated public sentiments, and discusses their implications for policy proposals.

3.1 Summary of Key Public Concerns

3.1.1 Border and Illegal Immigration

Dissatisfaction with Border Security Over 75% of Americans express disapproval of the Biden-Harris administration’s border management strategies, favoring the stricter policies implemented during the Trump administration. This widespread dissatisfaction highlights a significant concern regarding the effectiveness of current border security measures.

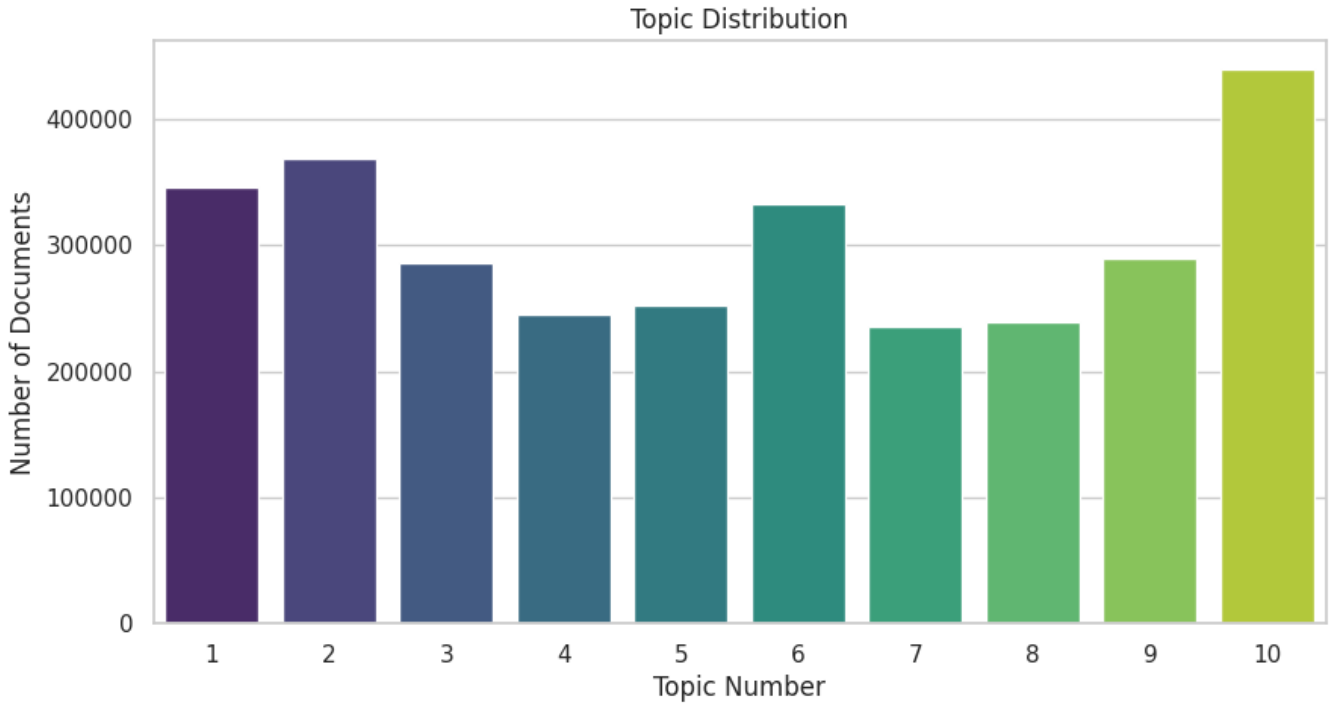


Figure 2: Topic Distribution

```

1 Conduct a targeted search to gather recent data and reports on public sentiment regarding
2 the below keywords.
3 ## keyword
4 ["INPUT_KEYWORD"]

```

Figure 3: LLM-Based Targeted Keyword Search Prompt

Increase in Illegal Crossings There has been a substantial surge in illegal crossings at the southern border, with apprehensions rising by 273% compared to the final year of the Trump administration. In the 12 months ending June 2024, approximately 1.9 million illegal crossings were recorded, exacerbating concerns about national security and resource allocation.

Financial Burden Illegal immigration is estimated to impose an annual cost of \$150.7 billion on taxpayers. This financial strain raises serious questions about the sustainability of current immigration policies and their impact on public resources.

3.1.2 Inflation and Economic Concerns

Rising Consumer Prices The Consumer Price Index (CPI) has escalated by approximately 19.2% since President Biden assumed office. Essential goods, including groceries, have seen a price increase of 21%, while gasoline prices have surged by 56% since January 2021. These rising costs are a primary source of anxiety for consumers.

Financial Strain on Citizens Nearly half of Americans report living paycheck to paycheck, a situation worsened by the escalating costs of living. Despite a low national unemployment rate of 4.2%, the personal financial burden caused by inflation is significantly affecting household stability.

Public Perception of Economic Policies The term "Bidenomics" is frequently cited by critics to describe the administration's economic approach. Over three-quarters of Americans feel financially worse off compared to previous years, reflecting a pervasive skepticism towards current economic management.

3.1.3 Taxation and Financial Policy

Mixed Public Perception Public opinion on taxation policies is divided. While there is some support for tax adjustments targeting high-income earners and corporations to promote economic equity, there remains substantial skepticism regarding the allocation of taxpayer dollars.

Concerns Over Allocation Many Americans are apprehensive about the funding of services that support illegal immigrants. There is a prevalent questioning of expenditure prioritization, with citizens demanding greater transparency and accountability in how tax revenues are utilized.

3.2 Public Sentiments

The sentiment analysis reveals a landscape marked by growing discontent and calls for policy reevaluation across key areas:

- **Support and Criticism:** There is a clear divide between those who support stricter border policies and those who advocate for more humane immigration measures. The financial burden of illegal immigration is a focal point of criticism towards the current administration.
- **Economic Anxiety:** Inflation remains a critical concern, with widespread worry about the rising costs of essentials impacting daily life. This economic strain is a significant factor influencing voter sentiment and preferences.
- **Generational Divide:** Younger Americans exhibit more critical views of current economic and immigration policies, advocating for more progressive and sustainable approaches compared to older demographics who tend to support traditional policies.
- **Political Leadership:** The Biden-Harris administration faces criticism over its handling of economic policies and border security, while former President Trump retains strong support among his base for his administration’s stricter immigration stance.

3.3 Implications for Policy Proposals

The insights derived from the analysis underscore the necessity for targeted policy interventions to address the identified public concerns. The key implications are as follows:

1. **Comprehensive Immigration Reform:** The dissatisfaction with current border security measures and the financial burden of illegal immigration indicate a need for comprehensive immigration policies that balance security with humane treatment and economic considerations.
2. **Economic Interventions to Address Inflation:** The pervasive economic anxiety related to rising consumer prices necessitates robust economic policies aimed at stabilizing prices, controlling inflation, and alleviating the financial strain on citizens.

3. **Transparent and Accountable Taxation Policies:** Given the mixed perceptions of taxation policies and concerns over revenue allocation, there is a critical need for enhanced transparency and accountability in how tax revenues are utilized to build public trust and ensure equitable economic policies.

3.4 Summary of Findings

The analysis reveals that border security and illegal immigration, economic concerns related to inflation, and taxation policies are the most pressing public issues influencing voter sentiment ahead of the 2024 U.S. Presidential Election. The widespread dissatisfaction with the current administration’s handling of these areas reflects a demand for policy reevaluation and reform. Addressing these intertwined concerns through informed and targeted policy measures is essential for fostering public trust and ensuring responsive governance.

Additional detailed visualizations, including word clouds and policy implication diagrams, are available in the Appendix (fig. 10, fig. 20–fig. 25).

4 Discussion

This section provides a critical analysis of the methodologies employed in this study, evaluating their effectiveness, strengths, and limitations in the context of policy formulation using Twitter data.

4.1 Strengths

4.1.1 Integration of Large Language Models for Policy Generation

Leveraging ChatGPT for policy formulation represents a significant advancement in translating data-driven insights into actionable recommendations. The structured prompting strategy ensures that the generated policies are comprehensive, feasible, and aligned with democratic governance principles. This integration exemplifies the potential of combining traditional NLP techniques with state-of-the-art language models to bridge the gap between data analysis and policy-making.

4.1.2 Scalability and Real-Time Analysis

Our methodological framework is designed to efficiently handle large-scale Twitter datasets, enabling real-time analysis of public sentiment. By implementing optimized data processing techniques, such as filtered data loading and parallel processing with spaCy’s `nlp.pipe`, the study can manage and analyze millions of tweets within a short timeframe. This scalability ensures that the framework remains effective for future elections or other high-volume social media events, providing timely insights that can inform policy-making processes promptly. Additionally, the

ability to perform real-time analysis allows policymakers to respond swiftly to emerging trends and public concerns, enhancing the responsiveness and adaptability of democratic governance.

4.2 Limitations

4.2.1 Potential Biases in Twitter/X dataset

Although social media platforms like Twitter/X cover a wide range of topics, the primary focus often centers on the preferences of individual candidates rather than on policy discussions. In an attempt to mitigate this, we used additional stopwords to filter out irrelevant content. However, bias still remains, as the data may reflect skewed opinions and preferences. To obtain a more balanced view of public sentiment, it is essential to explore alternative datasets that are less prone to such biases.

4.2.2 Reliance on LDA for Topic Modeling

While LDA is a well-established method for topic extraction, it has inherent limitations, such as the assumption of a fixed number of topics and difficulty in capturing complex semantic relationships. These constraints may lead to less nuanced topic representations, especially in highly dynamic discourse environments like social media. Additionally, LDA’s performance is sensitive to hyperparameter settings, which may require extensive tuning to achieve optimal results.

4.2.3 Potential Biases in Preprocessing Steps

The preprocessing pipeline, though comprehensive, may inadvertently introduce biases. For instance, the removal of specific stopwords, including political figures’ names like "Biden" and "Trump," could skew topic modeling by eliminating terms that are contextually significant. Furthermore, lemmatization may oversimplify words, potentially obscuring nuanced meanings essential for accurate sentiment and topic analysis.

4.2.4 Dependency on LLM for Policy Generation

While the use of ChatGPT facilitates the generation of policy proposals, it introduces dependencies on the quality and recency of the training data. The model’s outputs are also constrained by the specificity and clarity of the prompts provided. Additionally, ensuring that the generated policies are not only actionable but also ethically and contextually appropriate requires careful oversight and potential human intervention.

5 Conclusion

This study successfully demonstrates the potential of utilizing Twitter data and NLP techniques to extract key

public concerns and inform policy-making processes. By identifying and analyzing prevalent topics, and integrating LLMs for policy formulation, we provide a scalable framework for data-driven governance. Future work will focus on refining dataset selection to ensure comprehensive representation of public concerns and exploring advanced topic modeling techniques to capture more nuanced discourse.

6 Appendix

6.1 Executable Code

The complete and executable code for this project is available in the Google Colaboratory [here](#). The repository is organized into the following key components:

- **Environment Setup:** Scripts to install necessary Python packages and download NLP resources (NLTK data and spaCy’s English model).
- **Data Processing:**
 - Ingesting and filtering large Twitter datasets for English-language tweets with significant engagement.
 - Cleaning text by removing URLs, mentions, digits, punctuation, and performing stopword removal and lemmatization.
- **Topic Modeling and Visualization:**
 - Applying TF-IDF vectorization and Latent Dirichlet Allocation (LDA) to extract topics.
 - Generating visualizations such as topic distribution bar charts and word clouds.
- **Gathering Recent Data:** Structured prompts for using LLM-based searching services (such as Gemini Deep Research and Perplexity) to gather recent data for better policy making.
- **Policy Generation:** Structured prompts for using GPT-4 to formulate policy recommendations based on identified topics and sentiments.

This streamlined codebase ensures reproducibility and facilitates the integration of AI-driven insights into democratic governance.

6.2 Artifacts

Included in the repository are the following artifacts:

1. **Topic Summaries (topics.csv):** A CSV file containing the top keywords and representative texts for each identified topic.

- | 2. Sentiment | Analysis | Results |
|---------------------------|----------|----------------------------------|
| (sentiment_analysis.csv): | Detailed | sentiment scores for each tweet. |
- Policy Proposals** (policy_proposals.txt): Generated policy recommendations for each key topic.
 - Fine-Tuned Models:** Any models fine-tuned during the analysis process.
 - Visualizations:** Images and plots illustrating topic distributions and word clouds.

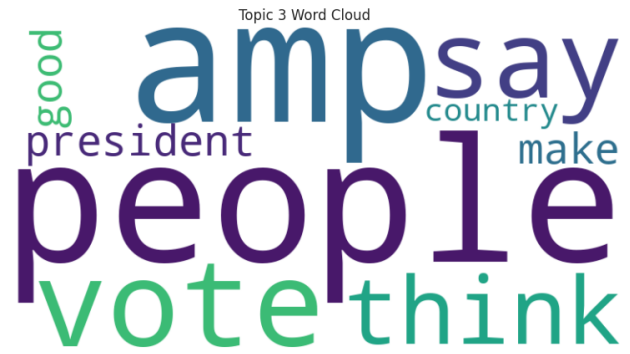


Figure 7: Topic 3: Harris, Vote, President, Border, Poll, Vance, VP, Illegal, Say, JD

6.3 Topic Word Clouds

All word cloud images for the identified topics are provided below for detailed reference:

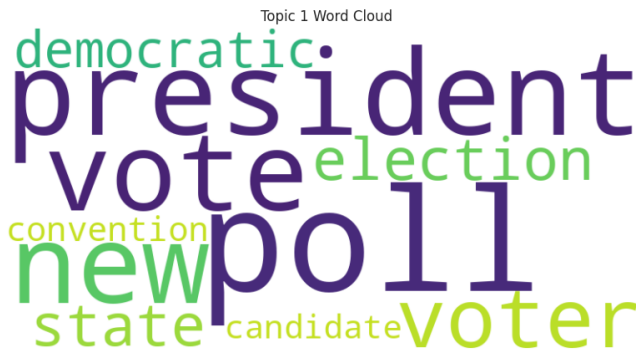


Figure 5: Topic 1: Harris, Drop, Race, President, Endorse, Garbage, Say, Vote, Woman, Presidential

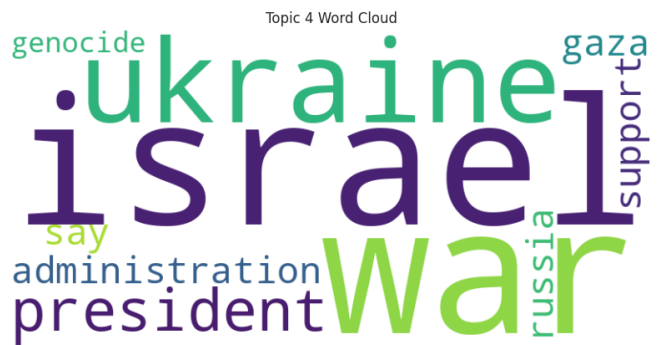


Figure 8: Topic 4: President, COVID, Party, Say, Harris, Putin, George, Campaign, Test, RT

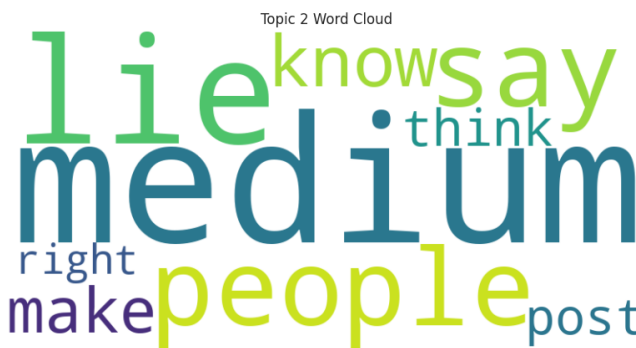


Figure 6: Topic 2: Rally, President, Shoot, Assassination, God, Attempt, Harris, Like, Debate, Say



Figure 9: Topic 5: Vote, Election, Lie, Harris, Party, Want, Say, Need, Democrats, President



Figure 10: Topic 6: Good, Thank, President, Great, America, Love, Follow, Make, Patriot, Day

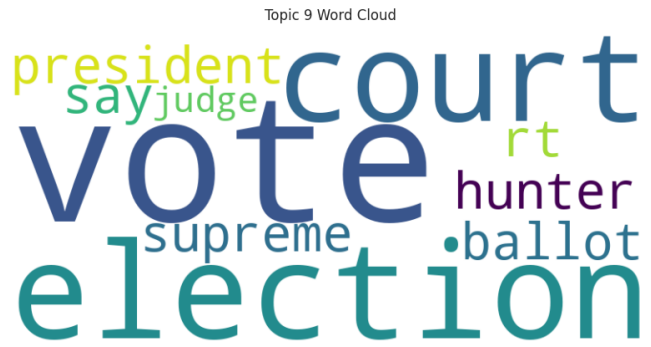


Figure 13: Topic 9: Israel, War, Administration, Ukraine, Harris, Policy, President, Inflation, Say, Amp



Figure 11: Topic 7: President, Service, Secret, Jill, Harris, Campaign, New, State, Stein, Say

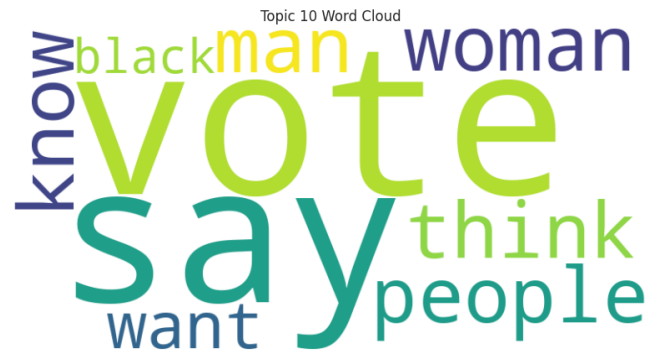


Figure 14: Topic 10: Hunter, Attempt, Assassination, Convict, Court, Felon, Crime, President, Criminal, Say

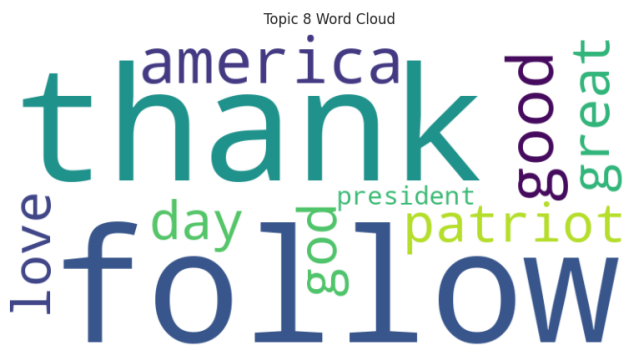


Figure 12: Topic 8: Like, People, Think, Party, Say, Know, Right, Vote, Man, Woman

6.4 LLM-Based Targeted Keyword Search Screenshots

The screenshots below illustrate the output of the LLM-Based Targeted Keyword Search process, showcasing how the model retrieves and presents relevant information based on the specified keywords.

6.5 LLM-Based Policy Input Screenshots

The screenshots below illustrate the input provided to ChatGPT during the policymaking process. These inputs guide the model in formulating comprehensive and actionable policy recommendations based on the analyzed data.

6.6 LLM-Based Policy Making Screenshots

The screenshots below illustrate the results of ChatGPT's policymaking process, showcasing how the model formulates comprehensive and actionable policy recommendations based on the analyzed data.

```

1  **Role Definition:**
2  You are a seasoned policy advisor in the U.S. with extensive experience in democratic
   governance, international relations, and economic policy formulation. Your expertise
   lies in creating comprehensive, feasible, and inclusive policy measures that address
   complex societal challenges.
3
4  ---
5
6  ### **Topic Summary:**
7  - **Keywords:** ["INPUT_KEYWORD"]
8
9  ---
10
11 ### **Additional Context:**
12 ["INPUT_SEARCH_RESULT"]
13
14 ---
15 ### **Tasks:**
16
17 1. **Summarize the Key Public Concerns:**
18 - Provide a detailed summary of the main public concerns related to this topic,
   incorporating the provided keywords, sample texts, and sentiment analysis.
19
20 2. **Identify Three Unaddressed but Important Areas:**
21 - Highlight three specific areas within this topic that are currently not being
   addressed but are crucial for maintaining democratic governance and societal well-
   being.
22
23 3. **Propose Actionable Policy Measures:**
24 - For each of the three identified areas, suggest comprehensive policy measures that
   are:
25   - **Feasible:** Can be realistically implemented within the current political and
   economic framework.
26   - **Inclusive:** Consider the diverse needs and perspectives of all affected
   populations.
27   - **Enhancing Democratic Governance:** Strengthen democratic institutions,
   transparency, and public trust.
28
29 4. **Provide Implementation Strategies:**
30 - For each proposed policy, outline brief implementation strategies, including key
   steps, responsible agencies, and potential challenges with mitigation approaches.
31
32 ---
33
34 **Format your response clearly with headings and subheadings for each section. Use bullet
   points or numbered lists where appropriate to enhance readability and structure.**

```

Figure 4: Policy Generation Prompt

Conduct a targeted search to gather recent data and reports on public sentiment regarding the below keywords.

keyword

border, illegal, inflation, tax, pay, bidenharris, year, administration, price, money

Pro Search

- ✓ Conduct a targeted search for recent data and reports on public sentiment regarding the keywords: border, illegal, inflation, tax, pay, bidenharris, year, administration, price, money
- ✓ Summarize the findings from the search results

Sources

Americans are NOT better off Now than they were under America ...
americafirstpolicy

Biden's Numbers, July 2024 Update - FactCheck.org
factcheck

Biden-Harris Administration Funnels Tens of Millions of...
judiciary.house

Show all

Perplexity

Recent public sentiment regarding the keywords "border," "illegal," "inflation," "tax," "pay," "bidenharris," "year," "administration," "price," and "money" reflects significant dissatisfaction with the current administration's handling of these issues. Here are key insights based on recent data and reports:

Public Sentiment on Key Issues

Border and Illegal Immigration

- A substantial portion of the American public disapproves of the Biden-Harris administration's management of border security. Over three-quarters of Americans express dissatisfaction, believing that the border was more secure under previous policies, specifically those associated with the Trump administration ¹.
- Apprehensions at the southern border have surged dramatically, with reports indicating a 273% increase in illegal crossings compared to the final year of the Trump administration. For the 12 months ending in June 2024, apprehensions reached approximately 1.9 million, highlighting a significant rise in illegal immigration ^{2 4}.
- The financial burden of illegal immigration on taxpayers is estimated at \$150.7 billion annually, contributing to growing concerns about national security and resource

+ Ask follow-up

Pro



- Inflation remains a critical issue for many Americans, with the Consumer Price Index

Figure 15: Screenshot of LLM-Based Targeted Keyword Search Output (Part 1)

2 4 .

- The financial burden of illegal immigration on taxpayers is estimated at \$150.7 billion annually, contributing to growing concerns about national security and resource allocation 6 .

Inflation and Economic Concerns

- Inflation remains a critical issue for many Americans, with the Consumer Price Index (CPI) rising by approximately 19.2% since President Biden took office. This has led to a significant increase in living costs, including essentials like groceries (up 21%) and gasoline (up 56%) since January 2021 1 2 .
- Nearly half of Americans report feeling financially strained, with many living paycheck to paycheck. The rising costs attributed to inflation have intensified public frustration with the administration's economic policies, often referred to as "Bidenomics" by critics 1 .
- A survey indicated that more than three-quarters of Americans believe they are worse off now compared to previous years under different policies, particularly regarding affordability and economic stability 1 .

Taxation and Financial Policy

- Public perception of tax policies under the Biden administration is mixed but leans toward skepticism. Many Americans are concerned about how taxpayer dollars are being allocated, particularly regarding funding for services that support illegal immigrants 3 .
- The administration's proposed tax adjustments primarily target high-income earners and corporations, which some view as necessary for economic equity. However, there is a prevailing sentiment that these policies may not adequately address the immediate financial pressures faced by average citizens 5 .

Overall Sentiment Summary

The overall public sentiment reflects a growing discontent with the Biden-Harris administration's approach to critical issues such as border security, inflation, and taxation. Many Americans feel that their financial well-being has deteriorated under current policies, leading to calls for a reevaluation of strategies aimed at addressing these pressing concerns. As economic challenges persist, public opinion appears increasingly aligned with alternative policy solutions that prioritize national security and economic stability.

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What are the main reasons Americans disapprove of the Biden-Harris administration's handling of inflation 12

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Figure 16: Screenshot of LLM-Based Targeted Keyword Search Output (Part 2)



****Role Definition:****

You are a seasoned policy advisor in the U.S. with extensive experience in democratic governance, international relations, and economic policy formulation. Your expertise lies in creating comprehensive, feasible, and inclusive policy measures that address complex societal challenges.

**Topic Summary:**

- ****Keywords:**** border, illegal, inflation, tax, pay, bidenharris, year, administration, price, money

**Additional Context:**

Recent public sentiment regarding the keywords "border," "illegal," "inflation," "tax," "pay," "bidenharris," "year," "administration," "price," and "money" reflects significant dissatisfaction with the current administration's handling of these issues. Here are key insights based on recent data and reports:

**Public Sentiment on Key Issues**

******Border and Illegal Immigration******

- A substantial portion of the American public disapproves of the Biden-Harris administration's management of border security. Over three-quarters of Americans express dissatisfaction, believing that the border was more secure under previous policies, specifically those associated with the Trump administration[1].

- Apprehensions at the southern border have surged dramatically, with reports indicating a 273% increase in illegal crossings compared to the final year of the Trump administration. For the 12 months ending in June 2024, apprehensions reached approximately 1.9 million, highlighting a significant rise in illegal immigration[2][4].

- The financial burden of illegal immigration on taxpayers is estimated at \$150.7 billion annually, contributing to growing concerns about national security and resource allocation[6].

******Inflation and Economic Concerns******

- Inflation remains a critical issue for many Americans, with the Consumer Price Index (CPI) rising by approximately 19.2% since President Biden took office. This has led to a significant increase in

- Nearly half of Americans report feeling financially strained, with many living paycheck to paycheck. The rising costs attributed to inflation have intensified public frustration with the administration's economic policies, often referred to as "Bidenomics" by critics[1].

- A survey indicated that more than three-quarters of Americans believe they are worse off now compared to previous years under different policies, particularly regarding affordability and economic stability[1].

****Taxation and Financial Policy****

- Public perception of tax policies under the Biden administration is mixed but leans toward skepticism. Many Americans are concerned about how taxpayer dollars are being allocated, particularly regarding funding for services that support illegal immigrants[3].

- The administration's proposed tax adjustments primarily target high-income earners and corporations, which some view as necessary for economic equity. However, there is a prevailing sentiment that these policies may not adequately address the immediate financial pressures faced by average citizens[5].

Overall Sentiment Summary

The overall public sentiment reflects a growing discontent with the Biden-Harris administration's approach to critical issues such as border security, inflation, and taxation. Many Americans feel that their financial well-being has deteriorated under current policies, leading to calls for a reevaluation of strategies aimed at addressing these pressing concerns. As economic challenges persist, public opinion appears increasingly aligned with alternative policy solutions that prioritize national security and economic stability.

Citations:

[1] <https://americafirstpolicy.com/issues/americans-are-not-better-off-now-than-they-were-under-america-first-policies>

[2] <https://www.factcheck.org/2024/07/bidens-numbers-july-2024-update/>

[3] <https://judiciary.house.gov/media/press-releases/report-biden-harris-administration-funnels-tens-millions-taxpayer-dollars>

[4] <https://www.factcheck.org/2024/01/bidens-numbers-january-2024-update/>

[5] <https://www.nytimes.com/live/2024/06/27/us/biden-trump-debate-fact-check>

[6] <https://www.congress.gov/event/118th-congress/house-event/C72696/text>

[1] <https://americafirstpolicy.com/issues/americans-are-not-better-off-now-than-they-were-under-america-first-policies>
[2] <https://www.factcheck.org/2024/07/bidens-numbers-july-2024-update/>
[3] <https://judiciary.house.gov/media/press-releases/report-biden-harris-administration-funnels-tens-millions-taxpayer-dollars>
[4] <https://www.factcheck.org/2024/01/bidens-numbers-january-2024-update/>
[5] <https://www.nytimes.com/live/2024/06/27/us/biden-trump-debate-fact-check>
[6] <https://www.congress.gov/event/118th-congress/house-event/LC72696/text>
[7] <https://www.congress.gov/event/118th-congress/house-event/LC73236/text>

Tasks:

1. **Summarize the Key Public Concerns:**

- Provide a detailed summary of the main public concerns related to this topic, incorporating the provided keywords, sample texts, and sentiment analysis.

2. **Identify Three Unaddressed but Important Areas:**

- Highlight three specific areas within this topic that are currently not being addressed but are crucial for maintaining democratic governance and societal well-being.

3. **Propose Actionable Policy Measures:**

- For each of the three identified areas, suggest comprehensive policy measures that are:
 - **Feasible:** Can be realistically implemented within the current political and economic framework.
 - **Inclusive:** Consider the diverse needs and perspectives of all affected populations.
 - **Enhancing Democratic Governance:** Strengthen democratic institutions, transparency, and public trust.

4. **Provide Implementation Strategies:**

- For each proposed policy, outline brief implementation strategies, including key steps, responsible agencies, and potential challenges with mitigation approaches.

Format your response clearly with headings and subheadings for each section. Use bullet points or numbered lists where appropriate.



Thought for a couple of seconds

1. Summary of Key Public Concerns

Border and Illegal Immigration

- **Dissatisfaction with Border Security:**
 - Over 75% of Americans disapprove of the Biden-Harris administration's border management, favoring previous policies under the Trump administration.
- **Increase in Illegal Crossings:**
 - Apprehensions at the southern border surged by 273% compared to the last year of the Trump administration, reaching approximately 1.9 million in the 12 months ending June 2024.
- **Financial Burden:**
 - Illegal immigration imposes an estimated annual cost of \$150.7 billion on taxpayers, raising concerns about national security and resource allocation.

Inflation and Economic Concerns

- **Rising Consumer Prices:**
 - The Consumer Price Index (CPI) has increased by approximately 19.2% since President Biden took office.
 - Essential goods like groceries have risen by 21%, and gasoline by 56% since January 2021.
- **Financial Strain on Citizens:**
 - Nearly half of Americans report living paycheck to paycheck, exacerbated by escalating living costs.
- **Public Perception of Economic Policies:**
 - The term "Bidenomics" is frequently used by critics to describe the administration's economic approach, with over three-quarters of Americans feeling financially worse off compared to previous years.

Taxation and Financial Policy

- **Mixed Public Perception:**
 - While some support the administration's tax adjustments targeting high-income earners and corporations for economic equity, skepticism remains about the allocation of taxpayer dollars.
- **Concerns Over Allocation:**
 - There is apprehension regarding the funding of services that support illegal immigrants, with many Americans questioning the prioritization of expenditures.

Figure 20: ChatGPT Policy Making Result (Part 1)

- **Concerns Over Allocation:**
 - There is apprehension regarding the funding of services that support illegal immigrants, with many Americans questioning the prioritization of expenditures.

Overall Sentiment

- **Growing Discontent:**
 - Public sentiment indicates increasing dissatisfaction with the administration's handling of border security, inflation, and taxation.
 - **Calls for Policy Reevaluation:**
 - Citizens are urging for alternative strategies that prioritize national security and economic stability to address ongoing economic challenges and societal concerns.
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2. Three Unaddressed but Important Areas

A. Comprehensive Immigration Reform

- **Current Gap:**
 - The focus has been primarily on border security and illegal immigration, with insufficient attention to pathways for legal immigration, integration, and addressing root causes of migration.

B. Sustainable Economic Growth and Inflation Control

- **Current Gap:**
 - While addressing immediate inflation concerns, there is a lack of long-term strategies to ensure sustainable economic growth and prevent future inflationary pressures.

C. Transparent and Accountable Taxation Policies

- **Current Gap:**
 - The administration's tax policies lack transparency regarding the allocation and utilization of tax revenues, leading to public skepticism and distrust.
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3. Actionable Policy Measures

A. Comprehensive Immigration Reform

Policy Measures:



Figure 21: ChatGPT Policy Making Result (Part 2)

Policy Measures:

1. Establish Clear Pathways to Legal Residency and Citizenship:

- Create streamlined processes for legal immigration, including work visas and citizenship pathways.

2. Invest in Integration Programs:

- Develop programs that facilitate the integration of immigrants into society, including language training, employment assistance, and community support.

3. Address Root Causes of Migration:

- Partner with countries of origin to improve economic and security conditions, reducing the impetus for illegal immigration.

B. Sustainable Economic Growth and Inflation Control

Policy Measures:

1. Implement Monetary and Fiscal Policies to Curb Inflation:

- Coordinate with the Federal Reserve to manage interest rates and control money supply.

2. Promote Innovation and Productivity:

- Invest in research and development, technology, and education to enhance productivity and drive economic growth.

3. Support Small and Medium Enterprises (SMEs):

- Provide incentives and support for SMEs to stimulate job creation and economic diversification.

C. Transparent and Accountable Taxation Policies

Policy Measures:

1. Enhance Transparency in Tax Allocation:

- Require detailed reporting on how tax revenues are allocated and spent, accessible to the public.

2. Introduce Independent Oversight Committees:

- Establish committees to oversee and audit tax expenditure, ensuring accountability and reducing misallocation.

3. Engage Public in Tax Policy Formulation:

- Create forums for public input and participation in shaping tax policies to reflect diverse perspectives and needs.



Figure 22: ChatGPT Policy Making Result (Part 3)

4. Implementation Strategies

A. Comprehensive Immigration Reform

Implementation Steps:

1. Legislative Action:

- Draft and introduce comprehensive immigration reform bills in Congress, securing bipartisan support.

2. Interagency Collaboration:

- Coordinate between the Department of Homeland Security, Department of Labor, and Department of State to streamline processes.

3. International Partnerships:

- Engage with foreign governments and international organizations to address migration root causes.

Responsible Agencies:

- Department of Homeland Security
- Department of Labor
- Department of State

Potential Challenges & Mitigation:

• Political Opposition:

- Engage stakeholders and build bipartisan coalitions to support reform measures.

• Resource Allocation:

- Ensure adequate funding and resources are allocated for integration and support programs.

B. Sustainable Economic Growth and Inflation Control

Implementation Steps:

1. Policy Coordination:

- Work with the Federal Reserve to align monetary policies with fiscal strategies aimed at controlling inflation.

2. Investment in Key Sectors:

- Allocate funds to research and development, technology sectors, and education to foster innovation.

3. Support for SMEs:

- Introduce grants, tax incentives, and -interest loans to support small and medium enterprises.

Figure 23: ChatGPT Policy Making Result (Part 4)

3. Support for SMEs:

- Introduce grants, tax incentives, and low-interest loans to support small and medium enterprises.

Responsible Agencies:

- Department of the Treasury
- Federal Reserve
- Department of Commerce

Potential Challenges & Mitigation:

- **Balancing Inflation Control with Growth:**
 - Monitor economic indicators closely to adjust policies as needed to maintain a balance between controlling inflation and promoting growth.
- **Ensuring Effective Use of Funds:**
 - Implement stringent oversight and evaluation mechanisms to ensure investments yield desired outcomes.

C. Transparent and Accountable Taxation Policies

Implementation Steps:

1. Legislative Reforms:

- Pass laws mandating detailed public reporting of tax revenue allocation and expenditure.

2. Establishment of Oversight Committees:

- Form independent committees comprising experts and public representatives to oversee tax spending.

3. Public Engagement Initiatives:

- Organize town halls, surveys, and online platforms to gather public input on tax policies.

Responsible Agencies:

- Internal Revenue Service (IRS)
- Government Accountability Office (GAO)
- Department of the Treasury

Potential Challenges & Mitigation:

- **Bureaucratic Resistance:**
 - Advocate for the benefits of transparency and accountability to encourage cooperation from governmental bodies.
- **Ensuring Public Participation:**



Figure 24: ChatGPT Policy Making Result (Part 5)

- Monitor economic indicators closely to adjust policies as needed to maintain a balance between controlling inflation and promoting growth.
- **Ensuring Effective Use of Funds:**
 - Implement stringent oversight and evaluation mechanisms to ensure investments yield desired outcomes.

C. Transparent and Accountable Taxation Policies

Implementation Steps:

1. **Legislative Reforms:**
 - Pass laws mandating detailed public reporting of tax revenue allocation and expenditure.
2. **Establishment of Oversight Committees:**
 - Form independent committees comprising experts and public representatives to oversee tax spending.
3. **Public Engagement Initiatives:**
 - Organize town halls, surveys, and online platforms to gather public input on tax policies.

Responsible Agencies:

- Internal Revenue Service (IRS)
- Government Accountability Office (GAO)
- Department of the Treasury

Potential Challenges & Mitigation:

- **Bureaucratic Resistance:**
 - Advocate for the benefits of transparency and accountability to encourage cooperation from governmental bodies.
- **Ensuring Public Participation:**
 - Utilize multiple channels and outreach strategies to engage a diverse range of citizens in the policy formulation process.

By addressing these unaddressed areas with comprehensive, feasible, and inclusive policy measures, the administration can enhance democratic governance, improve public trust, and effectively tackle the pressing societal challenges facing the nation.

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Figure 25: ChatGPT Policy Making Result (Part 6)