SOCIAL MEDIA LANDSCAPE OF ISTANBUL CONVENTION

Problem Statement: The discourse surrounding the Istanbul Convention on social media is multifaceted, encompassing diverse ideologies, sentiments, and demographics. Understanding the dynamics of public opinion and the factors influencing it is essential for comprehensive societal insights.

Context: Turkey was the first country to sign the Istanbul Convention (11 May 2011) , which aims to protect women from all forms of violence, including domestic violence, and provide fundamental equality among men and women through women's empowerment. Turkey has decided to withdraw from Istanbul Convention, based on the ruling conservative party's decision which has sparked varied discussions and reactions on social media platforms, particularly Twitter. Analyzing this discourse provides an opportunity to uncover patterns, sentiments, and correlations.

Criteria for Success:

- **Accurate Analysis:** Develop methodologies that accurately capture and analyze sentiments, ideologies, the popular topics among people who support the withdrawal from the convention, and the people who want the convention back, and other relevant factors within the tweets related to the Istanbul Convention.

- **Insightful Findings:** Derive meaningful insights that contribute to a deeper understanding of public opinions and reactions to the sign and withdrawal of Istanbul Convention.

- **Clear Communication:** Present findings in a clear and comprehensible manner, facilitating easy interpretation by both academic and non-academic audiences.

Scope of Solution Space: The focus is on analyzing Twitter data related to the Istanbul Convention, considering sentiments, ideologies, demographics, and other relevant aspects. The solution space includes various statistical and computational methods for analysis and interpretation.

Constraints:

- **Data Limitations:** The nature of tweets creates difficulty in meaning extraction since they include short text, and lack the information regarding visuals, hyperlinks, or quoted tweets. In addition to that Twitter data is quite noisy which causes poorly performed models.
- **Constraints in Annotation Part:** The fact that it is hard to understand the context of within which a tweet has been sent makes the sentiment extraction difficult. In addition to that users' background information is missing, therefore, it is hard to detect irony within the tweet. Besides, only one annotator annotates these tweets, so, this might cause some errors and biases in the data set.
- **Turkish Language Constraints:** There are not enough well-developed preprocessing methods and libraries for the Turkish language, and the library used in this analysis, nltk, failed to cover all stop words in the Turkish language. Besides, due to the Turkish language problem, the failure in normalization and lemmatization, there are lost of meaningless words. Another problem with Turkish language is that it prevents the usage of globally accepted packages such as VADER and Textblob for sentiment analysis.

Stakeholders:
- **Researchers:** Primary stakeholders include the researcher(s) conducting the analysis and the academic community interested in the intersection of social media and societal issues. They may use the analysis to gain a nuanced understanding of how different demographics and ideologies perceive and discuss the Istanbul Convention on social media.

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- **General Public:** The broader public, especially those interested in the discourse surrounding the Istanbul Convention and its societal implications.

- **Advocacy Groups:** Organizations and advocacy groups focused on gender-based violence, human rights, and related issues may have a keen interest in the findings.

- **Policymakers:** They are interested in understanding the societal dynamics and public sentiment related to the Istanbul Convention, as this information can inform policy decisions, advocacy strategies, and public discourse.

Data Sources:
- **Twitter Data:** The primary data source comprises approximately 150,000 tweets from Politus Database containing the keyword "istanbul sözleşmesi" and including annotation of ideology, emotions, welfare, democracy.

- **User Profiles:** Additional insights may be derived from user profiles, including demographics like gender and age group, ideologies, and other characteristics like user's location as province code.

Problem Solving:
- **Data Collection:** Gather tweets containing the keyword "istanbul sözleşmesi" along with user profile information from Politus Database which acquire tweets using Academic Twitter API.
- **Data Cleaning and Preprocessing:** Clean and preprocess the data, including handling duplicates, removing irrelevant tweets, and ensuring data quality.
- **Exploratory Data Analysis (EDA):** Conduct EDA to identify patterns, trends, and potential correlations within the dataset. Explore sentiment distributions, ideology frequencies, and other relevant metrics.
- **Statistical Analysis:** Apply statistical techniques such as t-tests, correlation analyses, and regression models to test hypotheses and explore relationships between variables.
- **Text Mining and Natural Language Processing (NLP):** Implement NLP techniques for sentiment analysis, topic modeling, and extracting insights from tweet text.
- **Visualization:** Create visualizations, such as charts and graphs, to effectively communicate findings and trends.
- **Interpretation and Conclusions:** Draw conclusions based on the analysis, considering the implications for understanding public discourse on the Istanbul Convention.

Possible Research Questions and Hypothesis:

1. How does sentiment vary over time regarding the Istanbul Convention?
   - **Hypothesis:** The sentiment towards the Istanbul Convention has changed over time, with distinct patterns corresponding to key events or developments.
2. Are there significant differences in sentiment towards the Istanbul Convention across different ideologies?
   - **Hypothesis:** Tweets from individuals identifying with certain ideologies (e.g., feminism, conservatism) exhibit different sentiments towards the Istanbul Convention.
3. Do emotions expressed in tweets correlate with the stance on the Istanbul Convention?
   - **Hypothesis:** Emotions such as anger and support are more prevalent in tweets expressing opposition or support for the Istanbul Convention.
4. Is there a correlation between demographic factors (e.g., age, gender) and attitudes towards the Istanbul Convention?
   - **Hypothesis:** Certain age groups or genders are more likely to express positive or negative sentiments towards the Istanbul Convention.
5. How do discussions about the Istanbul Convention relate to specific welfare or municipal issues?
   - **Hypothesis:** Tweets mentioning the Istanbul Convention are more likely to be associated with specific welfare or municipal topics, reflecting broader societal concerns.
6. Is there a regional variation in tweets related to the Istanbul Convention based on user location (province code)?
   - **Hypothesis:** Regions with different sociopolitical characteristics express varying opinions and sentiments regarding the Istanbul Convention.
7. Does the interaction between multiple ideologies influence the sentiment towards the Istanbul Convention?
   - **Hypothesis:** Tweets from individuals who identify with a combination of ideologies exhibit unique sentiments towards the Istanbul Convention.
8. Are certain user profiles (e.g., high follower count, account creation date) more likely to express strong opinions on the Istanbul Convention?
   - **Hypothesis:** Users with longer account histories or higher follower counts are more active in expressing opinions about the Istanbul Convention.
9. How do discussions about the Istanbul Convention intersect with big5 issues (internal affairs, national defense, corruption, foreign affairs, economy)?
   - **Hypothesis:** The sentiment towards the Istanbul Convention correlates with specific big5 issues, reflecting broader political and societal contexts.
10. Do municipal concerns influence the sentiment towards the Istanbul Convention?
    - **Hypothesis:** Tweets discussing the Istanbul Convention are more likely to focus on certain municipal issues, indicating a connection between national and local perspectives.