ABSTRACT

- Several studies support the existence of echo chambers in social media, leading to polarization of the population.
- A significant amount of research has been carried out in the ideological divides among the audiences of various news outlets.
- As such, the role of the news sources that support the formation of these echo chambers becomes critical.
- An objective news source leads to a well-informed population making ideological decisions that are more likely to be able to withstand future moral introspection.
- The goal of this project is to attempt to measure this objectivity, or the lack thereof.

BACKGROUND

- Allegations of bias have been leveled against news media time and again.
- Media bias has been extensively studied from a variety of perspectives academically.
- Biases in audiences, journalists, economic incentives, among other factors, have been proposed as responsible for the possible existence of ideological bias in media.
- Existing models that explain media bias include:
  - Hostile media phenomenon
  - Economic market models (supply/demand bias)

METHODS

In order to achieve our goal, the following steps must be carried out:
- Identify news stories that fit the criteria of objectivity.
- Identify number of terms that denote bias and their categories.
- Perform kMeans clustering on the resulting data set.
- Identify the cluster distributions of articles for each source.
- Scale clustering metrics for visualization.

RESULTS

Fig. 1. Data Set - Sample Records

Fig. 2. Sample Bias Terms and Phrases

Fig. 3. Article distribution by bias type

BIAS SCORES

<table>
<thead>
<tr>
<th>Source</th>
<th>Score</th>
<th>Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA Today</td>
<td>0.174</td>
<td>Liberal</td>
</tr>
<tr>
<td>New York Times</td>
<td>0.254</td>
<td>Liberal</td>
</tr>
<tr>
<td>The Washington Post</td>
<td>0.264</td>
<td>Liberal</td>
</tr>
<tr>
<td>Los Angeles Times</td>
<td>0.411</td>
<td>Liberal</td>
</tr>
<tr>
<td>New York Daily News</td>
<td>0.431</td>
<td>Liberal</td>
</tr>
<tr>
<td>New York Post</td>
<td>0.635</td>
<td>Conservative</td>
</tr>
</tbody>
</table>

CONCLUSION

- The work done here proposes a model for measuring bias in news stories.
- The scaling of the score allows any news source to be evaluated.
- The performance of the score must be evaluated non-computationally, since no standardized process for measuring media bias exists.

REFERENCES


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