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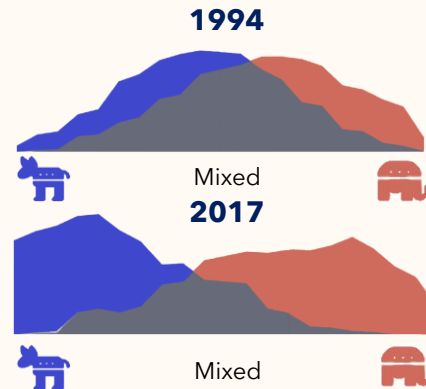
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## Motivation

The American political situation of the last years, combined with the freedom of speech offered by Social Networks, led to the diffusion of Political Polarization phenomenon online.

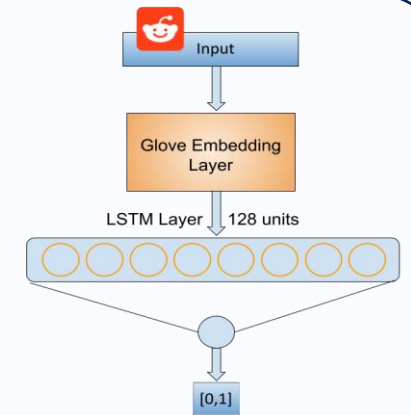
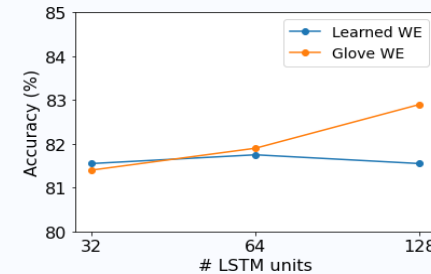
Recent works underline that this phenomenon could threaten the liberal flow of ideas and opinions that feeds the democratic process.

Moving from such literature, we propose a model that attempts to quantify the degree of political polarization of Reddit submissions in the Trump Era.



## Model Selection

1. *Embedding Layer* : Glove and Learned WE
2. *LSTM Layer*: Multiple units [34,64,129]
3. *Output Layer*: Sigmoid activation function



## Ground Truth



Polarized Ground Truth to train a Text Classifier:

1. Selecting Pro-Trump and Anti-Trump subreddits.
2. Collecting submissions.
3. Standard Text Preprocessing Pipeline.
4. Labeling submissions.



## Results

Dataset	# submissions	Accuracy
Test set	60,000	<b>0.843</b>
Gun control	2,411	0.712
Minority discrimination	4,839	0.732
Political discussion	46,339	0.721

Comparable with previous works on different Social Networks.

Model is able to generalize on less polarized topics.

## Conclusion and Future Works

We model the issue of predicting Political Polarization as a Text Classification task, building a model able to measure the degree of alignment of a post with pro-Trump ideologies and vice versa. This is a key step of a wider study focused on the identification of Echo Chambers on Reddit.

