Project Statement

- In the recent couple of years short-video platforms like TikTok have taken the internet by storm.
- Research indicates that around 90-95% of TikTok views come from recommendation algorithm as opposed to users searching for the videos.
- As a response, traditional social media giants like YouTube, Facebook and Instagram have also come out with their own brands of short videos.
- In this comparative study we want to investigate how quickly and aggressively TikTok's algorithm sends users into content rabbit-holes as opposed to YT Shorts.
- We will focus on three different genres of content on these platforms; Political, Emotional, and Misinformation.

Project Goals

- Firstly, we would like to gauge how quickly TikTok is sending our automated accounts (sock-puppets) into content rabbit-holes vs YT Shorts i.e with how much watch-time is personalization happening on the platform.
- Secondly, we would like to see that after the sock-puppets have been pushed into the content rabbit-holes what percentage of the following recommended videos are of the same topic.
- Finally, we will also try to measure which topics are inter-connected on these platforms.

Methods

The experiments are conducted in 3 major steps: Data Collection, Deploying SockPuppets, and Analysis of results. The process is the same for both TikTok and YT Shorts and we will analyze the three different genres separately.

Data Collection

Curated list of Hashtags per Topic

Collecting video metadata for hashtags

Sock Puppet Experiment

Assign Hashtag to sock puppet

Watch videos of assigned hashtag

Collect metadata of recommended videos

Analysis

NEP

Classifiers to analyze text, audio and video

Statistical Analysis

Challenges & Next Steps

- A major challenge was the lack of an official TikTok API to collect data. This required searching for the hashtags indirectly.
- Currently, we have finalized the hashtags and the classifiers (for all three genres) and are collecting video metadata on the different hashtags.
- Additionally, we ran preliminary experiments to see the extent of personalization after a sock-puppet watched 20 videos of a hashtag. The following was the word cloud for the hashtag “Grief”

We hope to present the results of our experiments soon.