

Twitter Speaks

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video

Link: <https://vimeo.com/706388062>

Technique

Text Generation

- Fine tune GPT-2 Model on 10,000 Tweets related to covid
- Generate sample tweets and choose our favorites

Voice Generation

- Text to Speech model based on a non-autoregressive Transformer based neural network
- Voice modifications using Parselmouth

Evaluation

Sentiment (5)

- Generate tweets with emotion expression. Majority of tweets express positive or negative emotion, few are “neutral”.

Readability (5)

- Ensure our text generation is coherent and sophisticated
- Improvement from Project 3 Lyric generation
- Gunning Fog Index (Mean: 11.03, High School Junior)

Social Impact (5)

- Comments on a relevant social topic
- Provokes questions about the overall response and politicalization of the pandemic

Novelty (4)

- Text to Text, Text to Voice, Short Film with narration have been done before
- We feel that the composition these techniques is novel, definitely not something we see everyday

Skillfulness (4)

- We think our project is very skilled compared to most however an Art or Machine Learning professional could likely create a more “perfect” audio, text and video model.
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Reflection

Limited Twitter dataset

Training the text-to-speech model ourselves with different voices

In the future use machine learning for video creation