

A Very Brief Intro to Neural Story Generation

9/19/2024

Module 1: Neural Language Models

CMSC 491/691: Interactive Fiction and Text Generation

Learning Objectives

- Start to identify the limitations of using transformers for storytelling and what attributes a good storytelling model would require
- Prepare for the class project
- Learn from your peers!

GPT-3 for Story Generation

The hungry dog licked her lips as she watched her owner eat.

"You've been a good girl," he told her. "I think you deserve a reward."

Once she was done, she jumped back on the couch and waited patiently.

Her owner took a piece of steak out of the fridge and gave it to her.

"Thank you," he said. "I'm glad you're my dog."

She wagged her tail and ate the steak.

"If you're good, you can have a treat later," he said. "But for now, you have to sleep. I have a long day tomorrow."

She nodded and lay down on the floor.

Her owner got up, turned off the lights, and lay down on the bed.

GPT-3 for Story Generation

The hungry dog licked her lips as she watched her owner eat.

"You've been a good girl," he told her. "I think you deserve a reward."

Once she was done, she jumped back on the couch and waited patiently.

Her owner took a piece of steak out of the fridge and gave it to her.

"Thank you," he said. "I'm glad you're my dog."

Remembering Story
State

She wagged her tail and ate the steak.

"If you're good, you can have a treat later," he said. "But for now, you have to sleep. I have a long day tomorrow."

She nodded and lay down on the floor.

Commonsense
reasoning

Her owner got up, turned off the lights, and lay down.

Levels of Information

‘What’s it going to be then, eh?’

There was me, that is Alex, and my three droogs, that is Pete, Georgie, and Dim, Dim being really dim, and we sat in the Korova Milkbar making up our rassoodocks what to do with the evening, a flip dark chill winter bastard though dry. The Korova Milkbar was a milk-plus mesto, and you may, O my brothers, have forgotten what these mestos were like, things changing so skorry these days and everybody very quick to forget, newspapers not being read much neither. Well, what they sold there was milk plus something else. They had no licence for selling liquor, but there was no law yet against prodding some of the new veshches which they used to put into the old moloko, so you could peet it with vellocet or synthemesc or drencom or one or two other veshches which would give you a nice quiet horror-show fifteen minutes admiring Bog and All His Holy Angels and Saints in your left shoe with lights nursing all over your mozg. ...

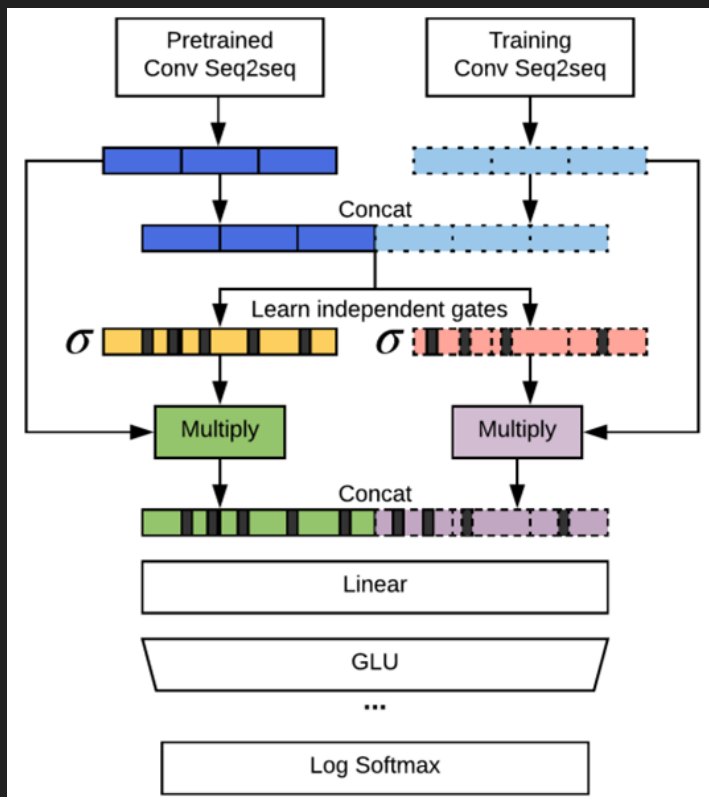
The story begins with the droogs sitting in their favourite hangout, the Korova Milk Bar, and drinking "milk-plus" – a beverage consisting of milk laced with the customer's drug of choice – to prepare for a night of ultra-violence.

Summary from Wikipedia

Alex begins his narrative from the Korova, where the boys sit around drinking.

Summary from SparkNotes.com

Hierarchical Neural Story Generation

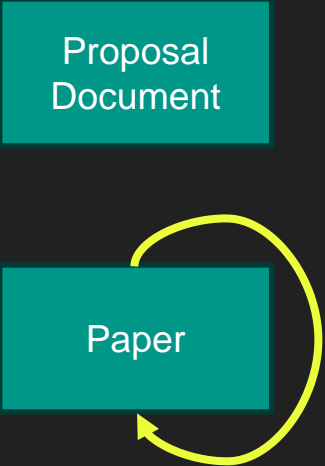


Fan, A., Lewis, M., & Dauphin, Y. (2018). Hierarchical Neural Story Generation. *Annual Meeting of the Association for Computational Linguistics (ACL)*, 889–898.

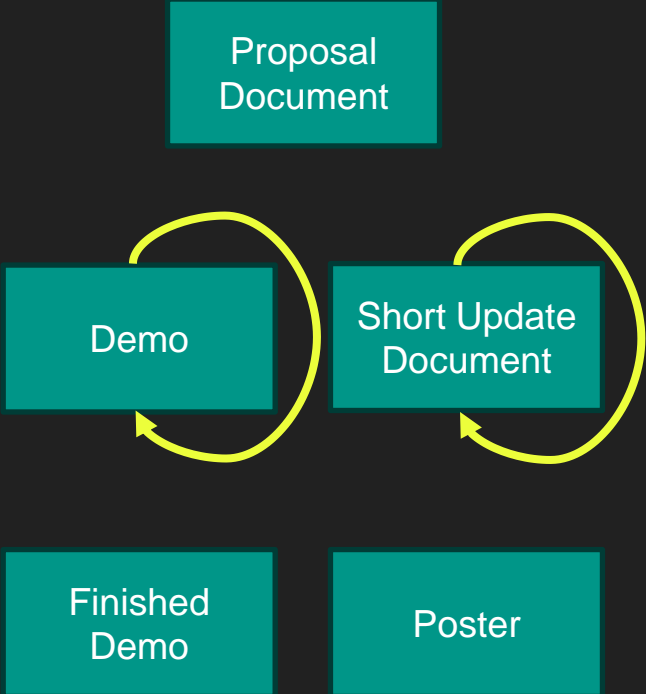
<https://www.aclweb.org/anthology/P18-1082/>

Project Flow

Paper



Demo



Storytelling Corpora

<https://laramartin.net/resources.html>

<https://huggingface.co/datasets>

Module 1 Paper Presentations

- **Pavan Sanjana Cirruguri** – Attention is All You Need
- **Varun Magotra** – BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding
- **Rohith Mada** – Exploring the Limits of Transfer Learning with a Unified Text-to-Text Transformer
- **Sukhbir Singh Sardar** – Green AI