

Description of the structure of my schema

For each new input (event), we update the schema variables based on that. In the process, we would consider the precondition and effects related to that event, which is previously splitted from all_relations provided. Firstly, we generate its preconditions by using the COMET model. For each precondition generated, if we find it has a match (similarity rate ≥ 0.7) in our current state which stores effect put into the state from the previous step, then we append that to the precondition list. This is to ensure that the event we input here is valid. After that, we put the effect to effect_list for future checking.

Story-tracking Questions

5 scenarios totally (Gina, Phil, Amy, Xander, Tim)

Codes and output as attached

COMET-ATOMIC questions

What types of stories is COMET-ATOMIC good at tracking? In other words, what types of information is it good at modeling? (It might help to think about how COMET-ATOMIC compares to other knowledge bases.)

I think a story with each sentence closely connected is good for tracking. This is because the focus of COMET is on the relationship for coherence of the story. The “if-then relationship” makes each candidate sentence to be checked meeting the preconditions before added.

What types of stories is COMET-ATOMIC bad at tracking? 2a. Do you think any of the other knowledge bases mentioned in class could better model these?

However, some complicated stories might not be greatly tracked. If we add another character and describe his background, the story might not seem to be logical in the view of the model. This is because it might impact the previous storyline, which is not the model looking for.

GPT3 could better model this kind of story because its training data is all-encompassing and the model is fine-tuning specific tasks. It could better detect most of the hidden structure and relationship inside the story instead of forcing it to build “if-else” relationships.