

Dear editor and distinguished reviewers,

We thank you for the detailed and helpful comments about our manuscript. We have carefully revised the article based on your recommendations. Below, we provide a detailed account of the responses and revisions made to the manuscript.

Yours sincerely,

Vasile Ionut Remus Iga

Gheorghe Cosmin Silaghi

Reviewer 1

Thank you for your comments. We have carefully addressed them as follows:

Comment #1:

“1) Too many acronyms in the Introduction! The reader is sure to be overwhelmed by so many letters. It would be better to write many of those names explicitly, at least in the Introduction.”

Answer:

We removed the acronyms from the Abstract and the Introduction sections. We have now also included the explicit name for BERT (Bidirectional Encoder Representations from Transformers) and GPT (Generative Pre-Trained Transformer). Now, all acronyms were only introduced in the Introduction section and not used there.

Comment #2:

“2) Definition 2 is not really a formal definition; it is more a commentary. In fact, one might present a formal definition of LLMs (language models that predict tokens above a certain size, etc), but that does not seem necessary.”

Answer:

Definition 2 was removed, and a partial description of the LLMs was moved in the Introduction section, namely page 2, line 29 (“A Large Language Model is a type of machine learning model

capable of processing and understanding texts, making it highly effective for Natural Language Processing tasks. Recently, deep learning models based on the transformer architecture have become very effective. This type of models consists of billions of parameters, trained on vast amounts of data to understand the semantics of words in texts.”)

Comment #3:

“3) I believe that Section X, Table Y, etc, when explicitly numbered, should be capitalized.”

Answer:

We have capitalized all references to sections, tables and figures.

Comment #4:

“4) There are several numeric penalties discussed after Expression (4); perhaps it is possible to justify the numbers in more detail?”

Answer:

As mentioned in the paper, the numbers were selected to satisfy our prompt formulation and requirements, such that the penalties are not too harsh but still discriminate the model’s inaccuracies well enough. As for the current iteration, these penalties reflect our expertise of working with such models, however future research could include devising a parameter search procedure to better determine the proper values for penalties. We added the following paragraph to the paper (page 9, starting with line 38):

“It is important to note that the penalties and their corresponding values used in this work and presented below are tailored to our specific prompt formulation and incorporate our expert knowledge of the application domain. They were designed to avoid overly harsh punishment of the models while still effectively distinguishing their inaccuracies. We stress that both the penalty categories and their values are not fixed and can be adjusted to suit users' specific requirements. Future research could explore defining a formal penalty selection procedure that would enable automatic calibration based on the downstream task in which the constructed knowledge graph is applied.”

Comment #5:

“5) Minor typo: first word of title of Section 4.1 should be "Discussion".”

The typo was corrected from “Disscusion” to “Discussion”.

Reviewer 2

Thank you for your comments and acceptance of our work.

We further corrected reference [18] Polat et al. to point to their published paper.