

# Review of: "Current Trends in the Use of Machine Learning for Error Correction in Ukrainian Texts"

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**Potential competing interests:** No potential competing interests to declare.

The submission deals with a relevant topic. Analysis of NLP tools for languages with less research is highly desired. However, the submission has its shortcomings.

The technical contribution is unclear. The submission reports about the experiments and results of several other papers, but it does not report on new experiments.

The authors try to report the state of the art in NLP and error correction for Ukrainian.

Tables 10 and 14 represent the most interesting results. However, they report work from others. The tables report different metrics, so they are not really comparable.

A contribution could be to check the performance in more detail, e.g., for the error types, and provide more statistics. Adding such an analysis could make the submission really valuable.

NLP for Ukrainian: This section is too short. This could be a good part of the contribution; there should be a systematic search and a deep discussion.

"The purpose of this work" appears on page 7, which seems quite late.

Pages 3 and 4: References should be introduced; currently, this text is rather generic.

Reference [3] seems to be out of scope.

"Fading gradients" cannot be understood based on previous content.

Embeddings: It is not explained how they are created.

Transformers: The learning mechanisms are not well included in the explanation.

Encoder – decoder: Very generic, not specific to the topic of the article.

NMT -> Probably the term LLM would be better to be used.

Page 8: The names and one reference per collection are not very helpful for the readers. It is recommended to add more information. It would be really helpful to focus on GEC and report statistics of types of errors. That would be a very helpful

contribution.

Referencing:

“In [25],” referencing style. Check and adopt a standard and readable way of referencing:

<https://libguides.murdoch.edu.au/ieee/text>

More DOIs should be included.

Reference 27 does not adhere to any format.

Details:

The abstract does not contain well-formed sentences. Most claims sound too strong for what was achieved.

“Provided screenshots” should not be mentioned as a scientific contribution in the abstract.

“The article’s author” is an unusual start.

Clear word order -> strict word order

80s of the 20<sup>th</sup> -> 1980s

Detailed analysis of modern trends -> Use scientific style

Formatting of tables: Differences in font sizes are strange.

Fig. 3 and Fig. 4 are tables.

Fig. 4: Why are the items presented in this order? What do sent. and er. refer to?

Fig. 5 to Fig. 8: different font sizes: make a table and report this without code

Page 11: English examples for a paper with Ukrainian as the topic?

Figure 14: explain F and P