

Responsible NLP Checklist

Paper title: *NIM: Neuro-symbolic Ideographic Metalanguage for Inclusive Communication*

Authors: *Prawaal Sharma, Poonam Goyal, Navneet Goyal, Vidisha Sharma*

How to read the checklist symbols:

- ☒ the authors responded ‘yes’
- ☒ the authors responded ‘no’
- ☐ the authors indicated that the question does not apply to their work
- ☐ the authors did not respond to the checkbox question

For background on the checklist and guidance provided to the authors, see the [Responsible NLP Checklist](#) page at ACL Rolling Review.

☒ A. Questions mandatory for all submissions.

- ☒ A1. Did you describe the limitations of your work?

This paper has a Limitations section.

- ☐ A2. Did you discuss any potential risks of your work?

(left blank)

☒ B. Did you use or create scientific artifacts? (e.g. code, datasets, models)

- ☒ B1. Did you cite the creators of artifacts you used?

(a) Dataset for semi-literate texts, Cited in section 3.2 and (b) NounProject for ideographs. Cited in Section 4.3

- ☒ B2. Did you discuss the license or terms for use and/or distribution of any artifacts?

For (a) it is come from our previous work and it follows Creative Commons Attribution. Similarly for (b) it follows Creative Commons Attribution (CC BY) which allows the use of symbol as long as proper attribution requirements are followed.

- ☒ B3. Did you discuss if your use of existing artifact(s) was consistent with their intended use, provided that it was specified? For the artifacts you create, do you specify intended use and whether that is compatible with the original access conditions (in particular, derivatives of data accessed for research purposes should not be used outside of research contexts)?

Discussed in conclusion section (Section 7)

- ☒ B4. Did you discuss the steps taken to check whether the data that was collected/used contains any information that names or uniquely identifies individual people or offensive content, and the steps taken to protect/anonymize it?

We have discussed this in "Ethical Considerations" section towards the end.

- ☒ B5. Did you provide documentation of the artifacts, e.g., coverage of domains, languages, and linguistic phenomena, demographic groups represented, etc.?

All the details are in Appendices (Appendix B, D and F)

- ☒ B6. Did you report relevant statistics like the number of examples, details of train/test/dev splits, etc. for the data that you used/created?

Appendix B and D

The [Responsible NLP Checklist](#) used at ACL Rolling Review is adopted from [NAACL 2022](#), with the addition of ACL 2023 question on AI writing assistance and further refinements based on ARR practice.

☒ **C. Did you run computational experiments?**

- ☒ C1. Did you report the number of parameters in the models used, the total computational budget (e.g., GPU hours), and computing infrastructure used?

Experiment details in Section 5, but does not mention GPU/Infra details since the experiments are light and does not need heavy infra.

- ☒ C2. Did you discuss the experimental setup, including hyperparameter search and best-found hyperparameter values?

Experiment details in Section 5, but does not mention hyperparameters since the setup is simpler in terms of execution and does not need complex frameworks.

- ☒ C3. Did you report descriptive statistics about your results (e.g., error bars around results, summary statistics from sets of experiments), and is it transparent whether you are reporting the max, mean, etc. or just a single run?

Section 6 elaborates all of this in detail.

- ☒ C4. If you used existing packages (e.g., for preprocessing, for normalization, or for evaluation, such as NLTK, SpaCy, ROUGE, etc.), did you report the implementation, model, and parameter settings used?

Mentioned in Section 5.1

☒ **D. Did you use human annotators (e.g., crowdworkers) or research with human subjects?**

- ☒ D1. Did you report the full text of instructions given to participants, including e.g., screenshots, disclaimers of any risks to participants or annotators, etc.?

Mentioned in Ethical Considerations and Appendix B

- ☒ D2. Did you report information about how you recruited (e.g., crowdsourcing platform, students) and paid participants, and discuss if such payment is adequate given the participants' demographic (e.g., country of residence)?

Mentioned in Ethical Considerations

- ☒ D3. Did you discuss whether and how consent was obtained from people whose data you're using/curating (e.g., did your instructions explain how the data would be used)?

Mentioned in Ethical Considerations

- ☒ D4. Was the data collection protocol approved (or determined exempt) by an ethics review board?

Mentioned in Ethical Considerations

- ☒ D5. Did you report the basic demographic and geographic characteristics of the annotator population that is the source of the data?

Mentioned in Appendix B

☒ **E. Did you use AI assistants (e.g., ChatGPT, Copilot) in your research, coding, or writing?**

- ☐ E1. If you used AI assistants, did you include information about their use?

(left blank)