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To whom it may concern,

The follow is a formal assessment of Daryna Dementieva's PhD thesis, which the automated system was unable to receive on time.

The candidate has a clear grasp of the fundamental problem area and is clearly highly technically proficient. The overall research theme is in detoxification of text, which places the burden of responsibility on publishers instead of on people speaking. The research addresses a sociolinguistically complex problem using NLP techniques, and these are generally very difficult to address, as significant parts of information are embedded in social context and thus not present in surface forms of the written context. The thesis thus addresses a recent, complex problem, and makes excellent progress. It is of high quality.

This thesis presents a thread of research which proceeds as follows. Firstly a dataset ParaDetox is introduced, a rational first step in addressing a new problem space. This dataset provides multilingual paraphrase data with toxicity reduction. The work is substantial and rigourous. Of particular note here is the high-quality annotation process and the consideration to build a dataset for multiple languages where the annotation standard aligns, which is valuable and usually not the case. Having cross-language alignment in a single dataset makes this work a step forward in the overall goal of mollifying the output of multilingual LLMs.

The next stage in research is new general methods for text style transfer through condBert. This provides high performance in the task involving several novel methods. It is effective in addressing the task presented in ParaDetox. This finally leads to two "detox" models, for English and Russian, that achieve high scores in a recent evaluation, and promising step forward.

There is significant evidence of strong publications at many venues, and also with a broad range of researchers. This doctoral thesis provides clear indications of the candidate's skill, ability to reason at a high level, and conduct independent research, and the candidate is clearly well-positioned for a successful international career. I recommend Daryna Dementieva for a doctorate.

Leon Derczynski