**DEPP TL Project**

**Partner Quarterly Report Submission Template**

**Instructions:**

Please fill out the following table by the 15th of the reporting month. Any photos, documents, or other attachments can be emailed to Catherine Murphy ([cmurphy@ifes.org](mailto:cmurphy@ifes.org)).

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| **DEPP TL Quarterly Report Partner Submission** | |
| **Partner Name** | **PDRI-DevLab@Penn, Jeremy Springman, and Diego Romero** |
| **Date:** | **January 13, 2025** |
| **Activities Completed:** | |
| * *This quarter, we developed a codebook that defines categories of anti-corruption activities and identifies actors that are suggestive of whether these activities are genuine or window dressing. Here, we first rely on the Machine Learning for Peace project’s project event classification of arrests and legal action related to corruption. We are now classifying the kind of corruption involved in each article depending on who is responsible (e.g., corruption by top members of government, corruption by low-level bureaucrats, corruption by members of the opposition).* * *Using this codebook, we began to assemble training data by hand-labeling articles from the MLP corpus according to the category of anti-corruption activity and the actors involved.* * *We also discussed costs and benefits of Encoder-only BERT models vs. State of the Art (SOTA) LLMs, such as GPT and developed a plan to test BERT for this task while reserving SOTA LLMs as a back-up.* | |
| **Activities Planned for next Quarter:** | |
| * *Next quarter, we will continue to refine the codebook and expand the training data.* * *Once the training data is finalized, we will train a ModernBERT model to learn from the human-labeled data and perform automated classification.* * *Once the model is trained, we will evaluate the ability of the model to accurately predict human labels on new data that the model was not trained on. Determining whether anti-corruption activity is legitimate or superficial requires a high degree of sophistication. If model performance is not satisfactory, we will turn to SOTA LLMs as an alternative.* * *We will also provide a full write-up of the codebook and model training process to solicit feedback from our partners and USAID.* | |
| **Implementation Challenges:** | |
| * *DevLab continues to be constrained by limited computational power. We are currently working to use university research funds to purchase new computers capable of running more sophisticated language models.* | |
| **Successes in Programming and Other Notes** | |
| * *DevLab’s previous classification has used the RoBERTa model. This quarter, we successfully tested the more powerful (and more recent) ModernBERT. Preliminary results suggest this will offer improved performance over earlier models.* | |