Paper Title:

BilinBot: A Bilingual Chatbot using Deep Learning

Paper Link:

<u>1 Summary</u>

1.1 Motivation

The authors intended to build BilinBot, a bilingual chatbot that supports interaction in the two languages Bangla and English to address the shortage of multilingual chatbot resources and boost user experience in Bangladesh.

1.2 Contribution

The paper evaluated BilinBot's performance using ROUGE-1, ROUGE-2 and ROUGE-L and discovered that Google BERT was the best feature engineering strategy for processing natural language while LSTM and GRU were the most useful for the training phase.

1.3 Methodology

The BilinBot was created utilizing natural language processing techniques like Google BERT for feature engineering and deep learning models like LSTM and GRU for training with inspection through ROUGE scores.

1.4 Conclusion

Successfully developed BilinBot, a bilingual chatbot that outperformed other state-of-the-art chatbots in understanding and responding to both English and Bangla languages as evidenced by higher ROUGE scores.

<u>2 Limitations</u>

2.1 First Limitation

The dataset for the Bangla language was confined to only a few categories for answering questions.

2.2 Second Limitation

Existing models were unable to manage multi-turn conversations due to their reliance on single responses.

3 Synthesis

Building on the work of this study could involve increasing the dataset to encompass a broader range of sectors and conversation styles making the chatbot more adaptable and relevant in other businesses.