

ABSTRACT

Religious studies are one of the fields with abundant resources for Natural Language Processing (NLP). This is because each religion has written guidelines that regulate the lives of its followers. In the context of Islam, the Qur'an and Hadith are the two main sources of law. Hadith is every saying, deed or agreement of the Prophet Muhammad narrated by his companions. Each hadith can contain one or more topics that are the core of its discussion. This is certainly a challenge for Muslims without an educational background in the field. Therefore, this study aims to test and compare existing RNN and Transformer methods in carrying out classification tasks on hadith texts according to their respective topics. This study will compare the accuracy levels of the two methods in carrying out multi-label classification tasks. The results obtained show that the Transformer model, especially CAMELBERT, has advantages over other test methods with a higher level of accuracy compared to other methods with an accuracy of 86.81% and a hamming loss value of 0.13193.

Keywords: *NLP, Multilabel Classification, Hadith, Recurrent Neural Network, Transformer Neural Network.*