DIRISA 2024 Annual National Research Data Workshop



Contribution ID: 17 Type: Talk

Context-Based Question Answering using Large Language BERT Variant Models for Low Resourced Sotho sa Leboa Language.

Thursday, 4 July 2024 13:05 (20 minutes)

Since reading and responding to text needs both a grasp of natural language and awareness of the outside world, it is challenging for machines to do (Akhila et al., 2023). The most difficult areas of information retrieval and natural language processing are question answering systems (QAS). The goal of the Question Answering System is to use the provided context or knowledge base to provide replies in natural language to the user's questions. Both closed and open domains can produce the answers. A closed domain's responses are limited to a specific situation, whereas open-domain systems are able to provide answers in a human-readable language from a vast knowledge base. Another issue is coming up with answers to the questions based on certain situations, as each question might have a variety of interpretations and responses based on the context to which it relates (Kumari et al., 2022). In our comprehension, this research work is the initial effort to extract answers from a context in low resourced Sesotho sa Leboa language. The Bidirectional

Encoder Representation from Transformers (BERT) variant model such as Albert, and DistilBERT is used as the language model in this research study

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Session Classification: Session