CODE-MIX CHATBOT FOR CUSTOMER SERVICE

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Abstract

Chatbot is a computer program simulate human conversation. Nowadays artificial intelligence features are added to mimic the human characteristics in conversation. Specially in customer care services chatbots are used to handle queries. Natural Language Processing (NLP) techniques are the base behind the artificial conversation. After the creation of transformer, NLP field significantly evolved. Usage of more than one language in one sentence which is called Code-Mix is very common in social medias and human chats.

This research is based on the code-mix chatbot which can handle customer queries in bank. Traditional machine learning and the transformer techniques are used to handle the code-mix language. In this research two translator with language identifier model and the code-mix data trained transformer model were developed and their performance was compared.

The testing results has proved that the translation model with language identifier achieved more accuracy than the code-mix data trained transformer model. Code-mix dataset, code-mix language identifier and the chatbot which can handle code-mix queries related to bank customer service are the novel outputs from this research.

Key words: Chatbot, Code-Mix language, Transformer, Natural Language Processing