Covid Virtual Assistant

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Introduction

- The coronavirus outbreak has major consequences for society worldwide.

- People are rightly concerned and have many urgent questions.

Problem Statement

- Help users to find information about covid-19 easier.

Area and Domain

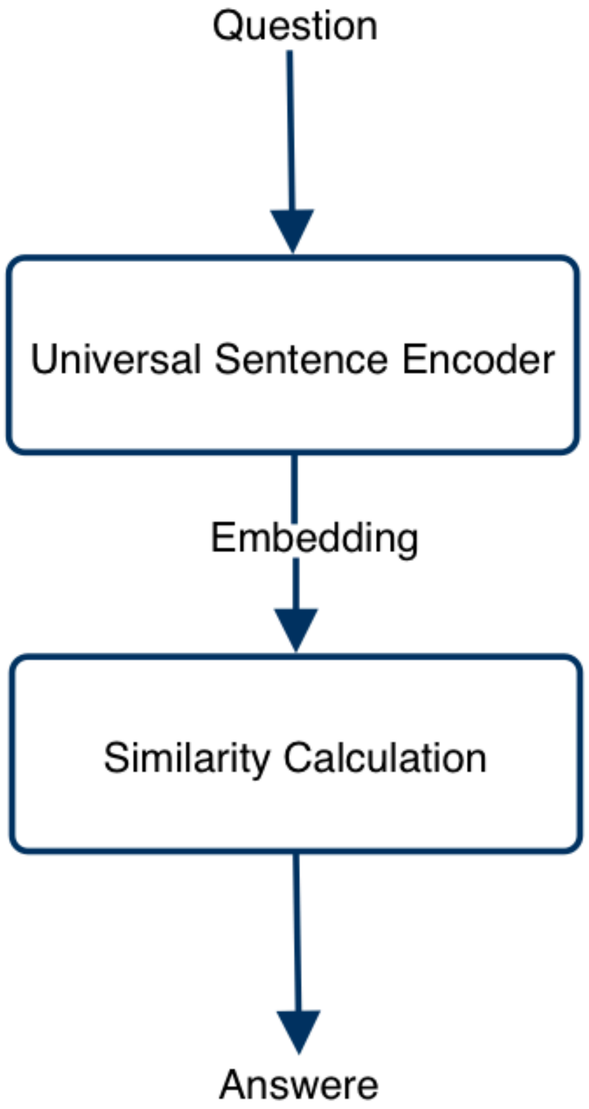
- Natural Language Processing
- Deep learning

Solution

- Chatbots can help to find the right answers more quickly.
- Chatbots can generate answers within seconds and their availability 24x7 makes it a suitable solution.

Implementation

- The question is passed to the Universal Sentence Encoder.
- The embedding generated is used to calculate the cosine similarity.
- The question in the dataset with the highest similarity to the asked question is selected.



Implementation(Contd.)

Dataset

- The dataset used is question and answers about Covid-19 provided on the WHO website.
- About 480+ questions are used for training.

Universal Sentence Encoder

- Universal sentence encoder is based on the Transformer architecture.
- It can take an arbitrary length text and produce an embedding
- The embedding will be a 512-dimensional vector

Limitation and Future Scope

- If an entirely new question is asked then the model may produce very vague answers.
- The chatbot can be improved to book vaccinations for the user.

Conclusion

- To prevent further spread of covid-19 people must be well informed as much as possible.
- A chatbot could make a large contribution to that.
- People can type in an urgent question and get an immediate answer.

Reference

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