Requirement Specification

Overview

The chapter seeks to give an analysis of the functionality the task dialog system would offer as well as the scope of its capability. The application would make use of frequently entered user inputs to learn and generate appropriate responses to user queries. This is to be done without human supervision. Requirements would be obtained from Chalkboard Education as well as literature such as Speech and Language Processing by Daniel Jurafsky to identify the necessary components for building a task dialog system.

User Identification and Use Case

The application would be used primarily by students of schools the use Chalkboard Education's platform to manage their content. The service would run on Whatsapp and on Facebook Messenger hence users would need Internet access and a subscription to a mobile carrier. Some use cases are outlined below to better understand how the application will be used:

1. A student of a newly added school (newly added to Chalkboard's platform) attempts to access the platform but does not know how to log in.
2. A student of a newly added school is a able to log in but has no knowledge of how to navigate the site and access resources.
3. A student of an already existing school on the platform is unable to find specific course material on the platform.

Requirement analysis

The main function of the task dialog system is to provide appropriate generated answers to user queries through a Whatsapp Business line and Facebook Messenger without human supervision. A key input is a set of previously asked queries to enable the system learn queries and

match them to appropriate responses. All use cases of the would involve the user querying the system.

Scope of the Project

The project would consist of a task dialog system operated through WhatsApp Business and Facebook Messenger. The front end of these applications would be used to receive user inputs,

Functional Requirements

1. Accepting user input
    - Users should be able to type in any problems they have or queries they need answer
2. Generating appropriate responses
    - The system should be able to read the queries as input and generate a response that best answers the query
3. Displaying generated responses
    - The user should be able to read the generated response. The response should be in a form easily understandable by the user.

1. The system should be able to process queries that have the same idea but appear in different forms and contexts
2. The system should be able to learn from queries it has not processed before to be better able to handle repeat new queries.
3. The system should **Non-Functional Requirements** be able to respond to a few non task oriented queries to maintain some level of interactivity with the user.
4. System needs to be able to remember responses given within the same query session and refer to previous information given within session to make a decision when necessary.