

Final Project Proposal CSE 573, Facebook Messenger embedding

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I Background

Starting as early as the 1980s, we were using networks ^[1] to message each other in real time. This desire for instantaneous interaction and conversation wherever we go has driven the development and replacement of many IM platforms, such as AIM, ICQ, and many others ^[2]. These platforms have been replaced with various chat rooms and services that provide slightly different functionalities but all serve the ultimate purpose of providing potentially meaningful connections with others.

II Topic

I will be focusing on chat services GroupMe, and Facebook Messenger. My main objective by the end of this project will be to use the data I have on conversations between myself and various groups (work or social) to develop an AI agent that seeks to communicate in a manner conducive with a particular actor in the chatroom.



III Motivation

Chatbots usually serve a purpose, such as helping organize meetings, provide answers to basic questions, or even play music. Unlike these other chat agents, such as DBpedia Chatbot and Discord's Rhythm bot^[3,4], I aim to create a chatbot that simulates the dialog inherent to that environment. The main idea being to create an agent that can "roleplay", or mimic, a particular person in the chat. There are already smart "auto-response" prompts available on services such as linkedIn or Facebook Messenger, but I seek to make these responses chat specific.

IV Data

I have already messed with Facebook messenger and GroupMe data in the past. The data for both GroupMe and Messenger come in JSON format. I have already created a parsing agent that can extract the history of user messages as well as a bag of words model. I have also created a Naive Bayes classifier that labels a message to a person in a chat. In particular, I will be focusing on two group chats that have 4 people and 8 people respectively. I have some cheap analysis of this data available, but not generated in time for this proposal. Look forward to an update on this on my github.

V Timeline

1. Feb 19, project proposal
2. Feb 26, data formatting complete
3. March 04, train LSTM on both data sets to predict what agent Y would say given current chat history
4. March 11, finalize poster.
5. March 18, finalize report.

VI References

1. https://en.wikipedia.org/wiki/Instant_messaging
2. https://en.wikipedia.org/wiki/Instant_messaging
3. <https://blog.dbpedia.org/2018/08/22/dbpedia-chatbot-2/>
4. <https://rythmbot.co/>