

Chatbot User Experience in Tourism

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Abstract

Generally, you must go to a city visitor center and talk with an actual person to get simple tourist questions about a city, things to do, or happenings answered.

Our project is to create better and more effective chatbots for use in the tourism space. This will allow users to better interact and get information about a particular city and tourist type questions, without having to ask someone in-person at the visitor center. A chatbot is an automatic bot that a person can interact with, ask questions, and get advice from. This bot will be able to answer questions for the user, such as, "Where can I park?" allowing users easy access to this type of information with no trouble. This will better people to get more information about a town or tourist activity without having to physically stop by the visitor center.

We will also be focusing on the quality of this chatbot in an attempt to create a better and easier user experience with correct answers, and answers that make more sense to the reader. The style of speaking used by the chatbot will be much more conversational and user friendly than chat bots usually are.

Overall this will better help to free up visitor center employees from continually answering the same questions. As well as allow tourists to access information about a city in a format that is easy to understand and in language that is coherent and understandable. Tourists will also be able to access this information more remotely and on the fly.

Procedure

- A series of question and responses were generated by listening to real questions asked by tourists to tour-guide.
- Slight modifications are made to the tour-guide's answers to make the sentences more credible, appropriate, and have the best user experience.
- Individuals were then surveyed, both in person and online to determine if the "translated" or original response was better.
- Based on this analysis we will train the chat-bot to respond in the most user friendly way to questions asked.

Methods Used

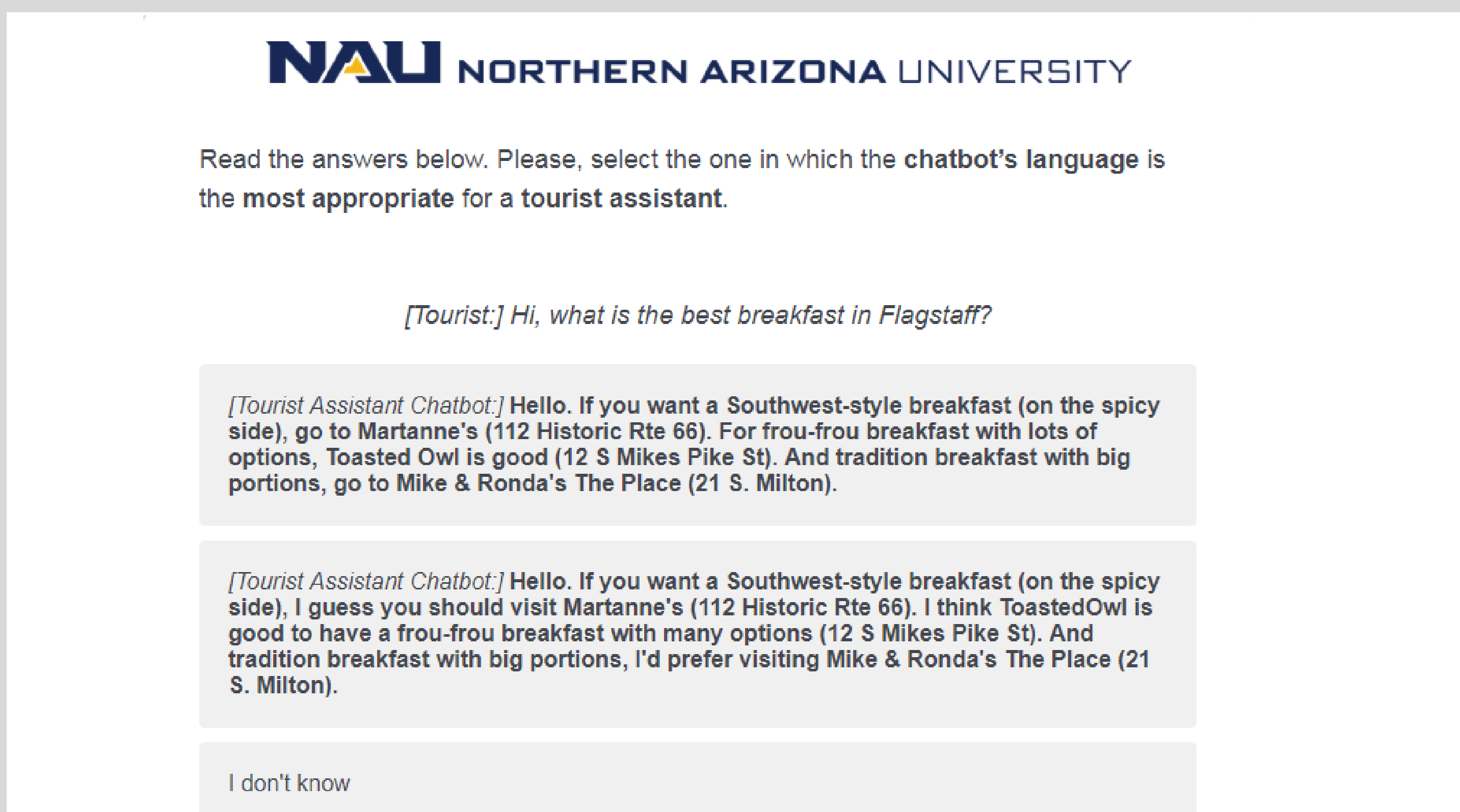


Fig 1. An example survey question asking the user to decide which response is more appropriate

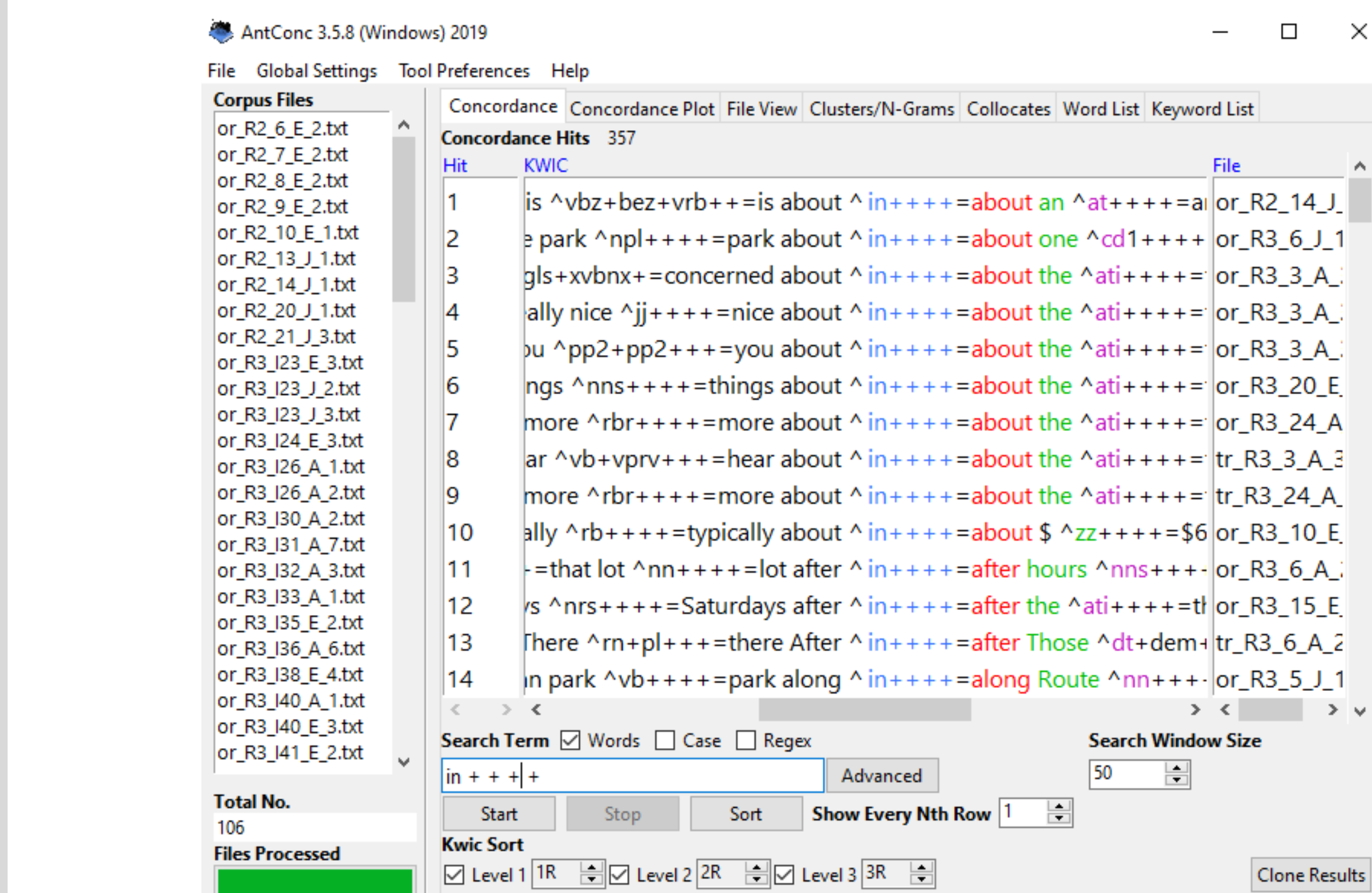


Fig 2. An example of how the sentences are analyzed word by word

Obtaining the Data

To obtain data about which style of language a user would prefer in each category, appropriateness, credibility, and best user experience. We created a survey that would pose a sentence originally said by a tourist assistant and a second sentence that was generated by a computer based off the original sentence. This can be seen in Figure 1 where a sample survey question is given. As can be seen the user has to choose which sentence's language is the most appropriate for the chatbot to be using.

This survey was given in two parts, first as a pilot in person where we were able to observe respondents and hear the line of thinking of the survey respondent. This allowed us to make slight tweaks in questions before the full trial in which we used a mass survey distribution tool, Qualtrics, to send out the survey to lots of people allowing us to gather lots of data about the language and registers used when speaking with a chatbot tourist assistant.

Results and Continuation

Our original pilot survey allowed us to quickly determine any errors in differentiation between questions or items that survey respondents used to determine a difference between the original and computer generated or "translated" sentence.

As we are still developing the chatbot and analyzing the data provided to us in the user studies, the project is on-going. Currently we are analyzing each word of ever sentence to make sure it is marked properly for each part of speech. For example to make sure each adjective is marked as such. An example of this can be seen in Figure 2. After this we will be developing a simply chatbot that will be able to answer user tourist based questions in a format with the best language and sentence structure for users.

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