DUOLINGO PEN PALS

Long-term Objective: Allow language learners to obtain a more immersive experience by interacting with others outside of the context of the app.

Implementation Overview: Create internal messaging feature to connect language learners to individuals who are in various stages of learning the language, with an option to make the product location aware and ultimately facilitate language learning meetups.

Objectives:

- Allow learners to interact with others, thus practicing real communication rather than contrived sentences.
- Provide increased data for machine learning in order to strengthen chatbot platform
- Encourage learners to meet with others in the area and practice speaking (if they desire)

Feature Set:

- Internal text based messaging application (similar to what's been done for the chatbot already)
- Location option enabling availability presence to individuals within a 10 mile radius
- If both individuals chatting have enabled availability and are in the same 10 mile radius, it should alert the users that they live within range of each other
- Voice recorded messages can be sent (From a UI perspective this should be a noticeable button to the left of the text entry box for messages to strongly encourage users to use this option)
- Random topic (generated off the users skill level of the language) should prompt the user upon entry to a new conversation, and a UI button should be placed at the top, which when selected, generates another random topic that can be rewarded with XP if the appropriate conversation is upheld.
- Gamification (through XP) should be tied to the length of the message being sent
- Double XP should be held to the voice recording (provided that the foreign language is being spoken)

Desired Impact:

- Strengthen user commitment and engagement with the app by enabling them to become more effective language learners, and accelerating their ability to help translate articles in order to generate revenue for the company.

Proposed Engineering Timeline:

Week 1: Generate UI mockups for what the interface will look like and where it will go. Make decisions on technology to implement, and estimates on what messaging load might look like.
Week 2-3: Begin development of text based messaging application with XP gamification (no random topic yet)
Week 4-5: Add random topic functionality to messaging application.

Week 6-7: Deploy to beta users, acquire initial feedback, potentially shift trajectory of functionality needed. Begin to collect data and give to chatbot team.
Week 8: Bug fixes and relevant UX enhancements.
Week 9: Begin development of voice message
Week 10: Finish development of voice message base functionality.
Week 11: Roll out voice to existing beta users. (Include prompt to let them know that they can know send voice recorded messages). Be sure to show increased gamification.
Week 12-13: Receive feedback and provide proper bug fixes. Provide increased load testing in preparation for a large demo
Week 14: Release to general population as a feature of the application gauging interested and user feedback.
Week 15-16: Develop location based functionality and matching alert notification
Week 17: Release functionality to individuals located in large city (New York)
Week 18: Get feedback from initial users (how many turned on location, how many of them met up etc.)
Week 19-20: Build in fixes to location based application
Week 21: Release opt-in location to all users of the application.
Week 22-23: Maintenance and reliability issues
Week 24-indefinite: Continuous support

Risks:

- Privacy regarding message text (opt-in for Duolingo to use the data in the apps).
- Reverse engineering locations of users by external users.
- Maintaining that gamification is not exploited without explicitly reading the messages
- Requires network effect, so many people need to use it, otherwise it provides little value
- Questionable on whether individuals will feel comfortable using the application to meet up (might need some sort of advanced profile built in, tying more and more data into Duolingo)