Designing Assistive Technology

Talk Birdy Fall 2016 Plan
By Charmaine Sum, Lisa Song, Anne Borromeo

Project Plan

Introduction to Talk Birdy

TalkBirdy is an application/responsive website that will be used to rate the quality of speech in short speaking samples, with research headed by Tara Byun. The resulting ratings will be used in research on speech therapy. This will be a replacement for the current method of gathering ratings, which is by a mechanical turk task.

What is the goal of our project?

- Create a fun application that will attract users to make ratings for fun rather than monetary reward.
- Develop an online platform for crowdsourced rating of speech production.
- Evaluate participant and token quality with a novel algorithm.
- Demonstrate platform validity.

Meeting with Tara and Daphna Reap

Goals of TalkBirdy

1. To create a front end application based on the ratings of short speech samples based on a validated method established
2. To rate “R” speech values ranging from totally correct incorrect to totally correct
3. To help make the application more engaging, fun, and user friendly

Who are involved in TalkBirdy?

1. Advanced researches – will assess the validity of the ratings gathered
2. Human subjects – anonymized identifiers will be used to avoid biases
3. Speech pathologists – tool for measuring speech eligibility
4. Student researchers – will code the valid speech samples; each session contains 100 tokens and typically lasts for about 15-20 minutes

What is the idea?

The DAT Fall 2016 project aims to create a front end web application that can allow the student researchers to access the speech samples and rate them on a spectrum. The ratings will then be collected by the principal investigator. We will also work on the visuals of the application.
The project will be a front end web application that will have the following features:
Who are the users of this project?
The website will be used by two main group of users in this project

1) Student researcher (Speech-Language Pathology Students)
The student researcher will be the group of users that will carry out the task of rating the speech samples. These users will usually be listening to the clips in sections of 100 tokens within around 15-20 minutes. They will then rate the clip on the spectrum and their ratings will be stored and rated by the advanced researcher.

2) Principal Investigator / Speech Pathologist
The principle investigator will set up the speech samples and put them into different groups and sections that needs to be reviewed by the student researchers. The principle investigator will then review the student researcher’s ratings and see how accurate their ratings are in comparison to all the data they collected. They will then make suggestions to what the student researcher should rate next.

Our Final Deliverables
- Sketching and Brainstorming
- User profiles
- Wireframes
- User Flow
- Paper Prototype
- User Testing
- Interactive Prototype
- Visuals design for the interface (icons, colors, typography)
- Final Presentation
- Documentation of the whole process

Project Outcome

The completed project of DAT Fall 2016 TalkBirdy will aim to have paper prototype, digital prototype, user testings and will have a final interactive prototype that can illustrate the complete flow of the Talk Birdy front end web application. The final interactive prototype will also have a completed visual designs with icons, color, typography that can illustrate TalkBirdy’s identity.