AI System Discussion

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Introduction

Funemes is a language learning web-based application that aims to help people master the pronunciation of languages better. Users of this system can have their pronunciation accessed in an unbiased way and in their own comfortable, non-stressful environment through contextual learning based on their personal occupation and choice of scenario.

Question 1

Our AI system benefits people by providing them with an interface to practice language pronunciation so that they can best prepare for stressful real life social situations such as classroom, business, work, speech, etc. There has been research showing that poor pronunciation can result in frustrations in social interaction and even in discirmination against the said groups. We would aim to partner our application with other applications that have large language-learning user bases to reach them better. We can also find online/offline language-learning communities to market our application and see if it does help them. They would use it to evaluate and practice their pronunciations. Our system has text-based affordance to lead users using the system for the first time so that they can learn how to interact properly with the system. More guidance can be added to the system if users have trouble using it still. Our system also focuses on having a simple conceptual model; there are only two features and users only need to click four times to utilize all functionalities of the system. The effectiveness of our system is constrained by the amount of data that it is exposed to and the amount of personalization that can be done to tailor the system to individual differences to help them best. It also lacks user experience testing, more people would give us a better idea how to change the application design better.

Question 2

Users benefit the system by interacting with it. More data from users would help the system become more robust towards the larger population. User feedback also helps developers understand how to change the application to better serve users. While evaluating the pronunciation of user audio, the interaction should notify the user of how the AI model is trained to account for its inaccuracies. Correct evaluation also depends strongly on smooth and clear audio. There should also be feedback and indication if the input audio is poorly captured or not captured at all, so that users would not be confused while using it.

Question 3

      The correlation between our system performance and usability is very little; therefore our system may not benefit much from coadaptation. We expect users to pronounce better and sound more like native speakers as they use the application more. Their improved performance would not affect how other audios are scored. But users may struggle to obtain effective evaluations in the beginning if their audio is cut off, if their audio is too broken up, or if their machine's microphone is ineffective. The system's improvement depends on user feedback for our developers, not so much for the system itself.