

“Even though Scott is deaf, I have never felt more heard in my life. For every joy he has brought into my life over the last two years, I wanted to surprise him with my entrance.”





Sign Me Up

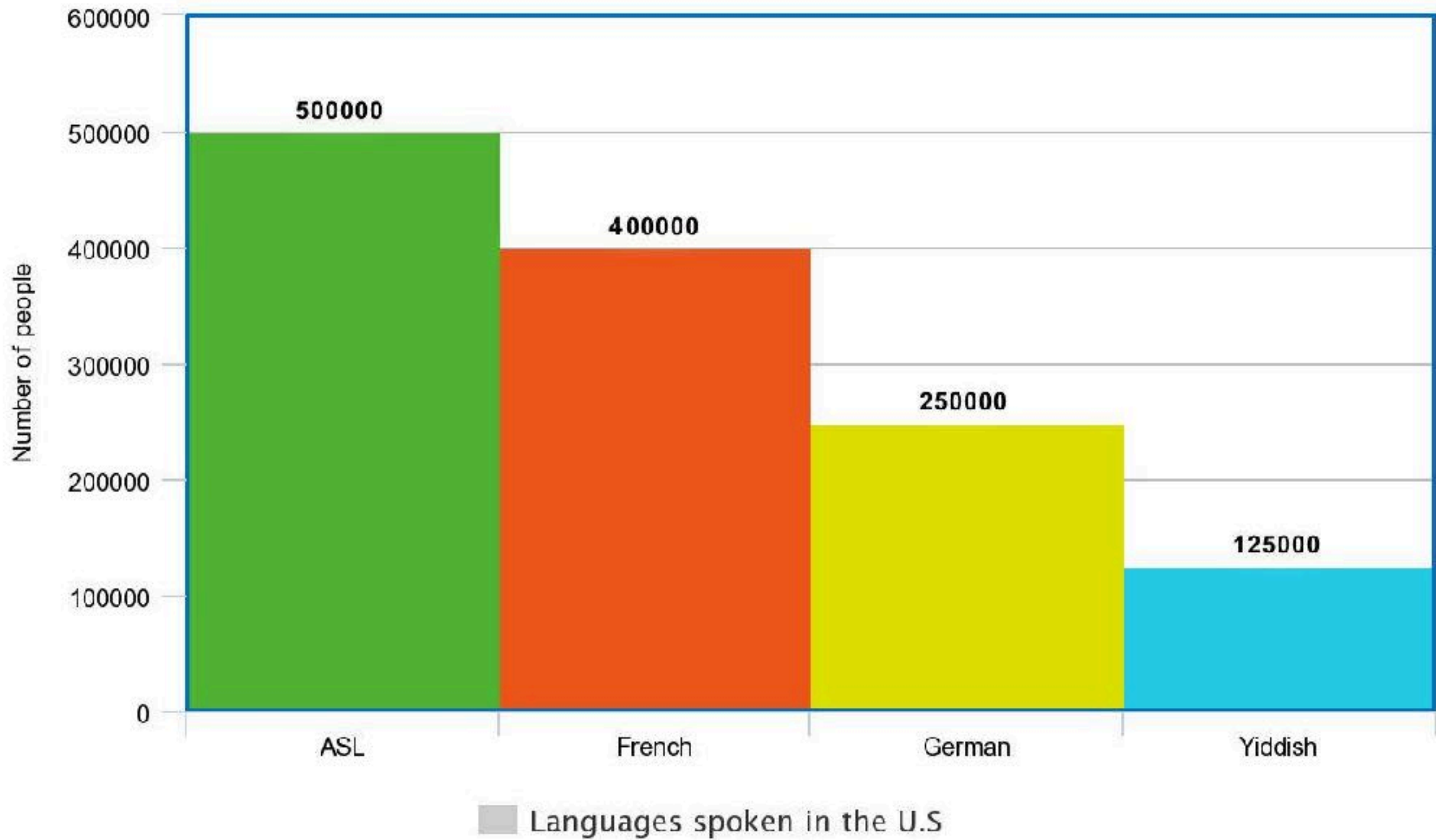
The beauty of equality

Date: March 24, 2018

Statistics

- ❖ One in eight people in the United States (13 percent, or 30 million) aged 12 years or older has hearing loss in both ears, based on standard hearing examinations [1].
- ❖ About 2 percent of adults aged 45 to 54 have disabling hearing loss. The rate increases to 8.5 percent for adults aged 55 to 64. Nearly 25 percent of those aged 65 to 74 and 50 percent of those who are 75 and older have disabling hearing loss [2].

Languages spoken in the US
Gallaudet University



Problem Statement

- ❖ Many people around the world have hearing impairment.
- ❖ There is a need to be able to communicate easily with them.
- ❖ Not enough apps that address this need.

How our app addresses this need

- ❖ Sign Me Up is an English to sign language translator that takes voice input and translates it to sign language making it easier for people to communicate with people with hearing impairment.

How it works

- ❖ First phase: User records desired sentence to be translated.
- ❖ Second phase: Our app sends this recording to the Amazon server (using aws transcribe service)
- ❖ Third phase: The returned transcribed text from aws transcribe is mapped to a series of corresponding sign language GIFs and displayed to the user.

Why Sign Me Up

- ❖ Our application uses Signed Exact English which is an easy to use language, simple for non signers to learn with time using our app.
- ❖ It benefits both sides, because it helps people who are hearing impaired become aware of their surroundings, and it helps other people learn about sign language.

Target audience

- ❖ Generally, anyone with no prior knowledge of sign language who wants to interact with someone with a hearing impairment.
- ❖ Anyone interested in learning sign language.

Future plans

- ❖ Implementing notifications for announcements in train stations, airports, etc.
- ❖ Implementing this in the opposite direction (sign language to English translation).
- ❖ Supporting more than one sign language.
- ❖ Integrating NLP with our app to understand the structure, and sentiment of the sentence rather than translating only word for word.

References

- ❖ [1] Lin FR, Niparko JK, Ferrucci L. [Hearing loss prevalence in the United States.\(link is external\)](#) [Letter] Arch Intern Med. 2011 Nov 14; 171(20): 1851-1852.
- ❖ [2] 1. Based on calculations performed by NIDCD Epidemiology and Statistics Program staff: (1) using data from the 1999-2010 National Health and Nutrition Examination Survey (NHANES); (2) applying the definition of disabling hearing loss used by the 2010 Global Burden of Disease Expert Hearing Loss Team (hearing loss of 35 decibels or more in the better ear, the level at which adults could generally benefit from hearing aids).
- ❖ [3] <http://gupress.gallaudet.edu/excerpts/HRTLtwo5.html>