Team 9

Erick Leyva, Priyanshi Vaishnav, Rose Navarette, Justin Girgis

CECS 451 Section 01

April 14, 2020

Project Report - Speech Recognition

Both figures display a significant difference between the collected data. Figure 1 shows that the accuracy between the two native languages, English and Chinese, varies drastically. The greatest and worst accuracy for the English data are both better than the corresponding data collected from that of the Chinese accent. Despite the outlier, the English transcript exhibits a symmetrical spread of data representing a normal distribution. This distribution informs us that the level of accuracy is consistently in the same range of numbers around the median; therefore accuracy is fairly similar throughout the entire transcript. On the other hand, the Chinese accent transcript was more inconsistent. With the median line on the lower half of the box and outliers of inaccuracy over 30, we can conclude that it fluctuates more frequently with accuracy varying from sentence to sentence.

Similarly these same observations can be noted in Figure 2, excluding the latter mention of outliers. Figure 2 shows that the fluctuation in the English Female transcript is more common since it has no outliers. Strangely enough, when comparing the Chinese Accent and English Female data, the median level of accuracy is significantly greater in the Chinese accent version. Overall between the transcripts, English Male , Chinese Male, and the English female, the English Male, version resulted in the lowest numbers meaning it is a more accurate representation of the original script.

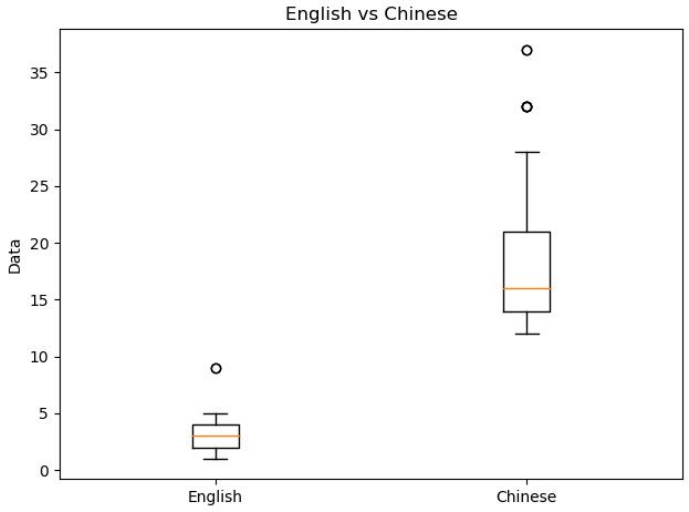

Figure 1. An example of the comparison by native languages

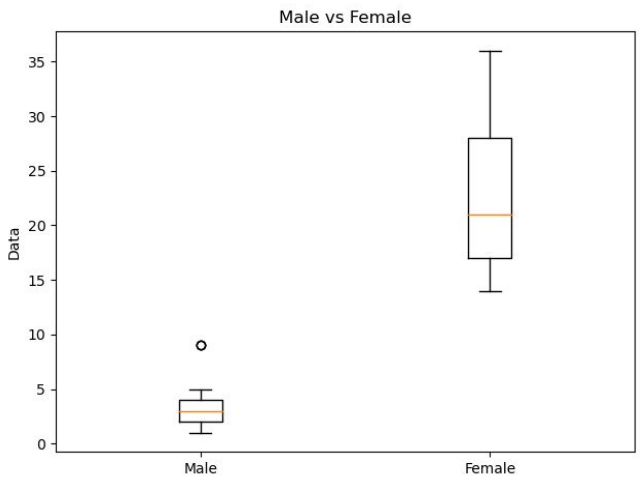

Figure 2. An example of the comparison by genders