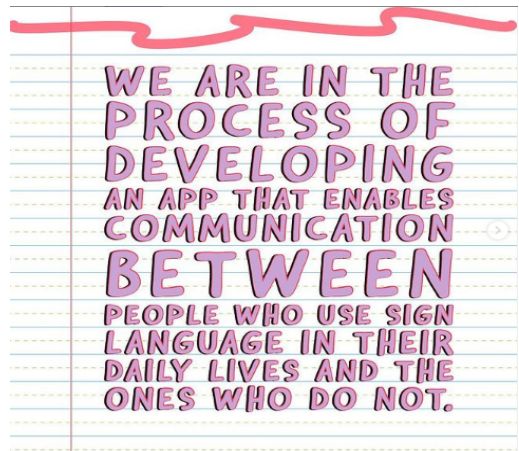The Signers

We learn from our experiences, it may go well or bad. In this experience of ours, there was a huge handicap. Since this was our second experience in this journey, we were aware of the fact that there was going to be many obstacles. Therefore, we prepared ourselves according to this mindset and aimed to have the most efficient outcome. We chose the 10th Sustainable Development Goal (SDG: Reduced Inequalities), because there are so many people who are facing inequalities everyday and we wanted to abate the number of people who are going through these struggles. While we were searching for a main idea for our project, we saw that there were many people who use sign language in their daily lives. However, in Turkey there were limited resources for individuals to interact with people who utilize sign language. To overcome this issue, we decided to take action and create a resource of our own.

First, we had to determine the function of our resource. After many meetings and discussions among our team, we reached a consensus, which was to make a translation website that translated words to sign language and vice versa. To achieve our goal, we found many websites that translate words to sign language and we also acquired some specific words in sign language with the help of a teacher from our school who was also our advisor.


WE ARE IN THE PROCESS OF DEVELOPING AN APP THAT ENABLES COMMUNICATION BETWEEN PEOPLE WHO USE SIGN LANGUAGE IN THEIR DAILY LIVES AND THE ONES WHO DO NOT.

To reach more people who use sign language, we contacted two Turkish sign language organisations to ask for sample videos that they already had, unfortunately we could not get a response from either of them. However, we did not give up and we started searching for online Turkish sign language dictionaries which had descriptive videos of the hand gestures. While some of us were learning the words, some of us were learning coding techniques such as; image processing and machine learning libraries for Python in order to translate sign language into text, which was a tough journey for them. In order to publicise our project, we created an Instagram account which was directed by some members of our team. However, we could not reach as many people as we desired in the first place. Regardless, we are still trying to improve our engagement with the community via Instagram.



Due to the ongoing pandemic,we had some obstacles along the way, the first one being

an advisor crisis, since our advisor left our school halfway through the project. We had to continue without an advisor which was dire because we did not have the knowledge that our advisor had about sign language. Another drawback created by the pandemic was communication. We were not able to meet face to face,therefore we communicated through our WhatsApp group and had many Zoom meetings. This led to some delays but with collaboration, we managed to eliminate these difficulties that we faced. Our biggest problem was not being able to film our sign language videos at the same time with appropriate background. Hence, all of our team members filmed themselves at their house. Although, all videos were not filmed according to the deadline we decided upon, at the end we finished all of our videos, our website and our application for Windows and MacOS (https://gsl-signers.github.io/text2sign/) (https://link.calpardo.com/gslwin) (https://link.calpardo.com/gslmacos).

On the technical side we advanced our knowledge by quite a bit. We reiterated on our preceding knowledge of the Python programming language. Then we took some online courses of MIT on machine learning so that we would have a solid understanding of the concepts we would use. Finally we started working on the app by building a text-to-video tool that translates user entered sentences into videos of our own depicting their meanings in sign language. Afterwards we came up with an even more ambitious idea: translating the other way around, which would mean translating from live video feed to words. We achieved this using our newly-gathered knowledge on machine learning and python and learned a lot on the way.

In conclusion, we achieved our goal of creating a website and an application which makes translations from words to sign language and vice versa. Even though we had some obstacles and challenges during this project, knowing that we were able to help people and being aware of the fact that our website will be used to reduce inequalities makes us honoured that we were a part of this beautiful journey. If we had to give some advice about our journey, it would be moving forward regardless of how many obstacles you face and how many times you wanted to give up. We are here now because of our mistakes, disagreements, and handicaps. Pursue your goal and imagine the positive outcomes that you may receive at the end.