**SOLUTION**

We live in a world that is digitized, where communication has been much discussed. Communication between hearing and deaf has always been an important topic in the digitized world. Phone calls have been replaced by text messages, emails and video calls, but the problem is still there. How can deaf people communicate face to face with those who are able to hear?

That’s exactly what our app will solve. Our app “IUY – I understand you” will prevent the communication wall from coming between the hearing and the hearing impaired. IUY will be a two-way communication app that translates signs to text and speech, and text and speech to signs.

**How does the app work?**

To start using this app, you’ll have to download it on your mobile or tablet. It can be downloaded on every kind of mobile, Iphone, Ipad, tablet devices. IUY will scan signs then translate it into text or speech.

IUY has a unique technique that connects to the camera on your device and scans your hand gestures into text and speech using special detection software. When someone speaks, IUY will convert the speech into text or signs, this will appear on the screen.

Our app is also connected to gloves that allow you to communicate via the app without having to open the camera on the app. This allows the hearing impaired to use both hands to communicate. The glove has special sensors that responds to the movements, and pass them on to the app. The app will be able to translate characters into correct grammatical full sentences.

You can also add words to the template on the app. This is an easier way for you who do not always want to scan characters. You can thus use words from the template too highlight your message. You can read more about the app here: prototype

Why use IUY??

"I wish there was a way I could communicate with hearing people in an effective way" - nobody said anymore. Our app has a lot of benefits attached to it. The biggest benefit is that IUY eliminates the communication wall between the deaf - and hearing people. This makes the deaf people more included in schools and workplaces, which is desirable for the deaf people.

The app will be able to replace interpreters to some extent. The interpreter may be tired of interpreting sign language for a long period. The interpreter can sometime exclude words or phrases which will not give the same message to the deaf people. In some contexts, the explanation may disappear or be unclear. In large gatherings or discussions between the deaf people, the interpreter cannot follow through on all at once. Our app will fix that problem by scanning your hand gestures and translates it to full text to the user.

IUY will give the deaf people more freedom and independence. They don’t need not be dependent on pen and paper, or by an interpreter who will translate everything to them. The sense of self-esteem is something everyone is entitled to and IUY will give this to the deaf people.

IUY will save you both time and resources. By avoiding having to look for your pen or avoiding having to find a note pad on your smart phone to write on. It also saves money in the form that an interpreter will be replaced as mentioned above.

The statistics of our survey show that 61.8% believe our app will solve their problems in a very good way. It shows that our solution is very relevant for the deaf people.

As mentioned in the problem the deaf people do not have a lot of hearing friends and the opposite. Our app will resolve this problem. The benefit of the app here is that it will enable you to communicate face to face with both hearing and deaf people. The app will allow the deaf people to be more included in the community.

Other benefits are that the app can be further developed so that it can be used in several places. Further development may be to associate the app during lectures, so the deaf people can be included in the daily lectures with hearing students, and they do not have to go to special lectures for people using sign language. The app can be connected to the lecturer's microphone and the presentation will be converted to text / signs on the smartphone or screen next to the lecturer.

The deaf people were asked during the survey if they would like to use our app, and the score was shocking. It was 92.6% who would use our app, according to statistics.

Our app will translate signs, not sign language. The reason behind this is that, according to SignLab, sign language is not 100% signs, but 30% facial expression. SignLang is a company that we’ve been in contact with. They’re working on creating an app that will teach parents sign language, so that they can communicate with their deaf children.

Another reason for not translating the language, but only signs is, that sign language is not universal. The language is different from country to country and from person to person. Some use fast hand gestures, and other use slow hand movements. According to the Norwegian Deaf Federation, no sign language contains full sentences. Sign Language is an abbreviation of sentences.