TESSA is an experimental system that aims to aid transactions between a deaf person and a clerk in a Post Office by translating the clerk’s speech to sign language. **[1]** (But they used British Sign language)

These systems are designed to provide translation of conversational speech between languages with a potentially very large vocabulary **[4].**

In our modern information and communication society, daily life would be unimaginable without technology. Information and Communications Technology (ICT) is also very useful for people with special needs. Deaf are people who can’t talk and hear, hearing people are unfamiliar with Deaf because they don’t know their language. They think that if you cannot hear, you can easily access any necessary information by simply reading it in written form, and if you really need to communicate, you can always write your message down. **[5]**

According to survey in 2015, there are 121 “Deaf sign languages” in the world, but there is not such an efficient mechanism where Deaf can easily understand people thoughts**. [6]**

We have been developing a system which combines aspects of both kinds of systems mentioned above. It is an interactive translation system but it operates in a very restricted domain and is designed to assist in the completion of a transaction between a Post Office (PO) clerk and a deaf customer. **[1]**

The quality of TESSA's signing was measured in two ways: intelligibility of signs, and acceptability of signs to deaf users**. [1]**

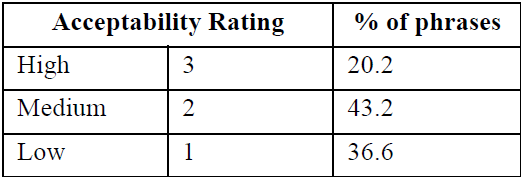
1. Automatic speech to text conversion (speechrecognition);

2. Automatic translation of arbitrary English textinto a suitable representation of sign language;

3. Display of this representation as a sequence ofsigns using computer graphics techniques. **[1]**

Note that, because there is no separation of speech and language decoding in this system, it does not suffer from inaccuracies in the speech decoding process being forwarded to a language translation process that is also imperfect, an effect that can make more complex systems fail to translate correctly even quite simple phrases. By using pre-stored phrases, in effect we trade flexibility and range for accuracy. **[1]**

Table 1 shows the percentage of phrases that were rated in each category of acceptability. The average acceptability rating was 2.2 and ranged from 1.7 to 2.8. **[1]**



However, for many people who have been profoundly deaf from a young age, signing is their first language so they learn to read and write English as a second language **[2]**

As a result, many deaf people have below-average reading abilities for English text and prefer to communicate using sign language **[3].**

**References**

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