

Finances:

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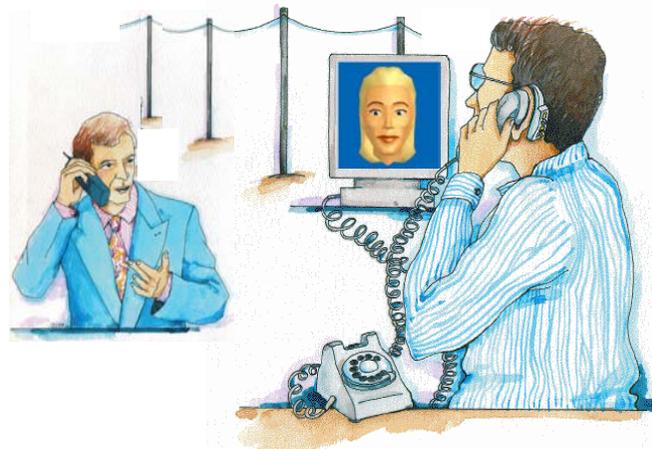


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SYNthesised talking FACE derived from speech for hearing disabled users of voice channels

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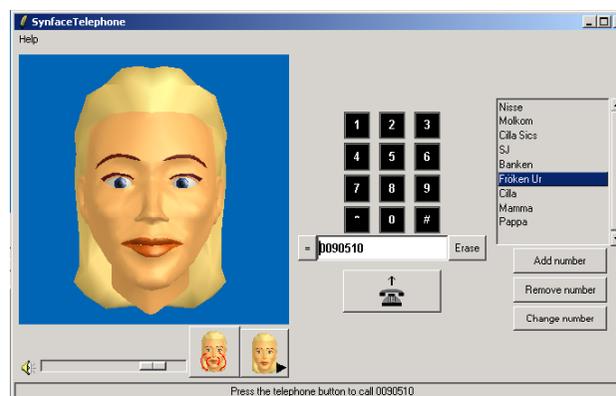
What is SYNFACE?

Hard of hearing people need to be able to clearly see the face of the person they are talking to in order to be able to lip-read them. This is impossible over the telephone. The SYNFACE project aims to develop a new system for hard of hearing telephone users. It uses an artificial face to recreate the lip movements of the person at the other end of the telephone line.

How does SYNFACE work?

SYNFACE uses a computer program. A computer attached to your telephone will show the artificial face. When you make a phone call you will listen as normal. At the same time you will be able to watch the lips moving on the artificial face. You can lip-read the face to help you to understand the speech you are hearing.

To use SYNFACE, only the hard of hearing user will need to have the device installed. This is an advantage over videophones where both people involved in the call need to have special equipment.



What does SYNFACE look like?

The picture above shows how SYNFACE might look on a computer screen. On the left the artificial face can be seen. You can choose between different faces by clicking on one of the buttons beneath the face. Another control under the face allows you to change the volume of the call.

On the right half of the display is the telephone part. Here you will find a keypad for dialling and a personal phonebook. In the phonebook you may also attach a face to a telephone number, which means that the same face is chosen every time you dial that number.

Technology

SYNFACE uses automatic phoneme recognition to identify the speech sounds and visual speech synthesis to recreate the speech motions.

Future

The SYNFACE software could be used for cellular phones, palm pilots and future communication devices. Other possible uses for SYNFACE could be giving information in noisy places, in teaching systems and in animated films and games.

Partners

Project partners are from the Netherlands, United Kingdom and Sweden. The project began on 1 October, 2001 and it will run for three years.

For more information

Have a look at our website:
<http://www.speech.kth.se/synface>