Project 02

Technologies to Reduce
the Access Barrier
in Human Computer
Interaction
Erasmus Intensive
Programme

Rome, Italy, 5.5. – 17.5.2013
http://www.trabhci.eu/

ChatUp

- Linh - Lahti University of Applied Sciences (Finland)
- Alexey - Lahti University of Applied Sciences (Finland)
- Lidia - Universitat Politecnica de Valencia (Spain)
- Mirko - University of Applied Sciences Dresden (Germany)
- Jaime- University of Zaragoza (Spain)

Initial task description shortly

Create an application to help people to send emergency and regular emails to their friends and relatives by using gestures and speech recognition.

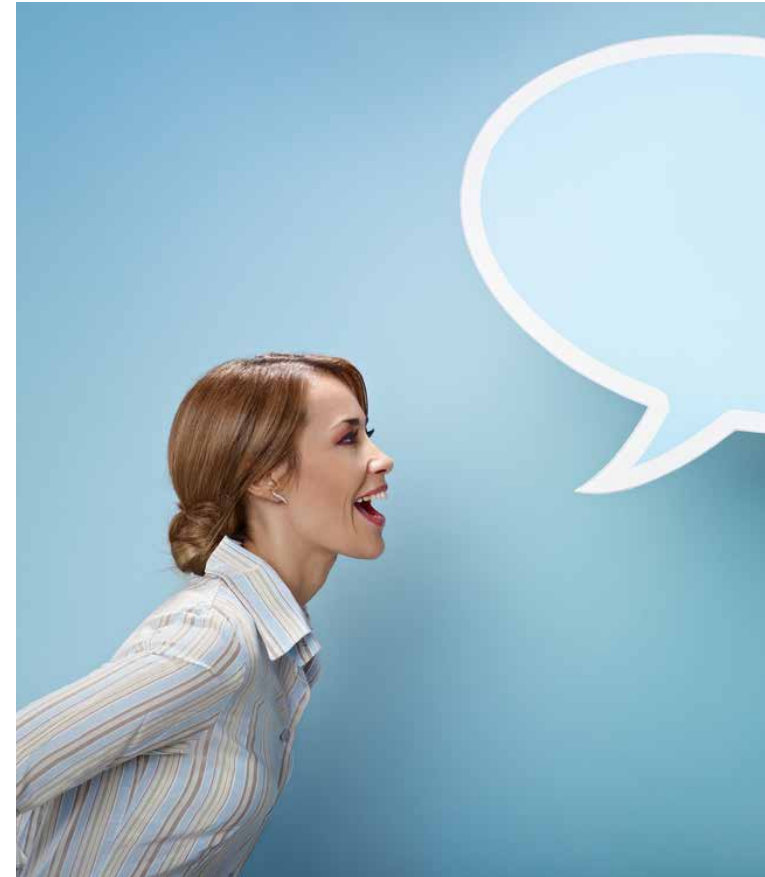Application must be easy to use in complicated condictions.

Initial idea of the group shortly

Application allows to write text by talking using speech recognition.

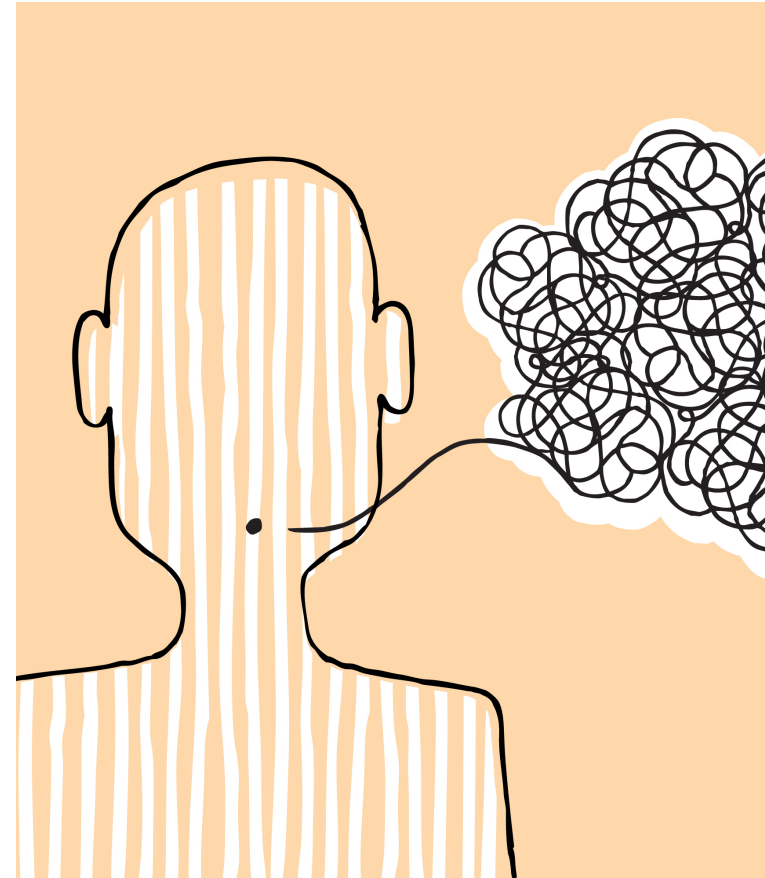The sender is able to send emergency messages just by making a simple gesture with the hand.

By using this technology people can extend their connections and obtain additional communication possibilities.
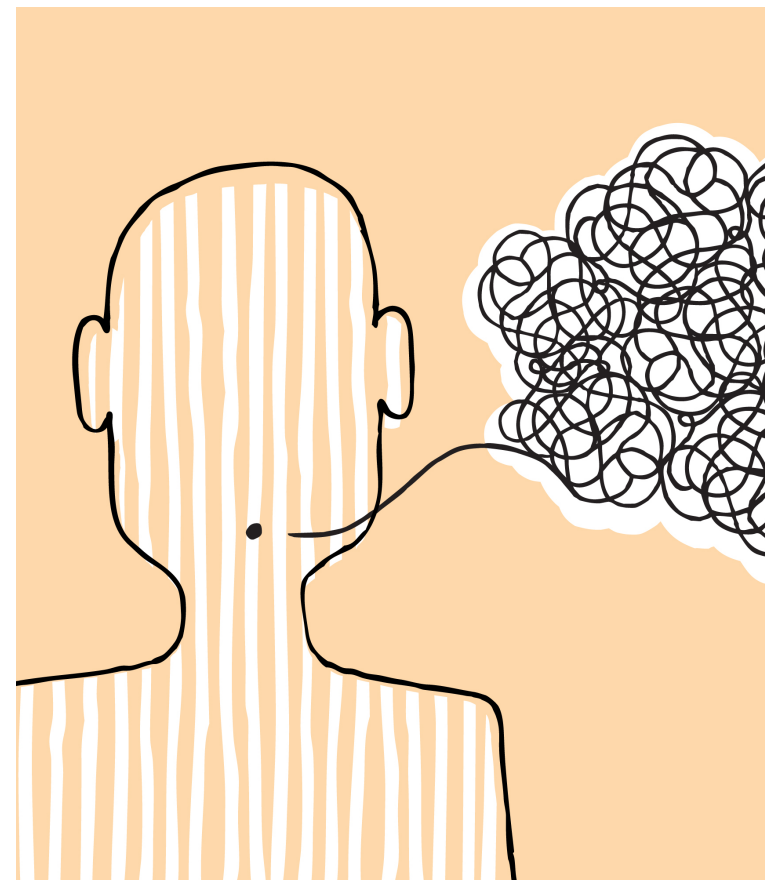
Focus group

People who are not able to walk
People who have problems of movement: tremor
and other disabilities for typing

Purpose and motivation

- To improve the quality of life
- To make it easier for people to communicate
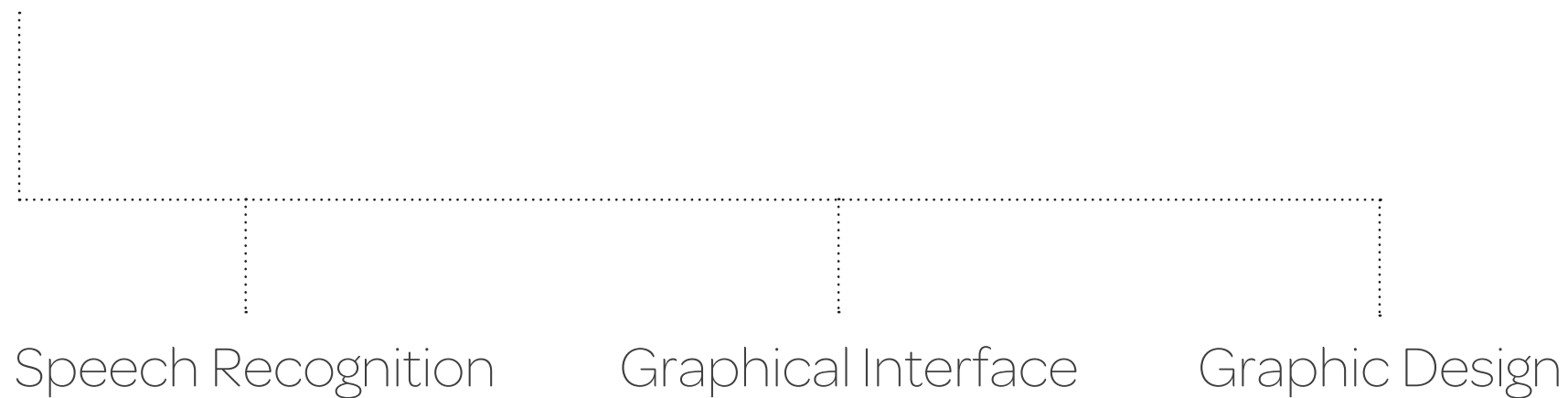- To help people to ask for help in case of emergency

Functionalities, Technologies and architechture applied

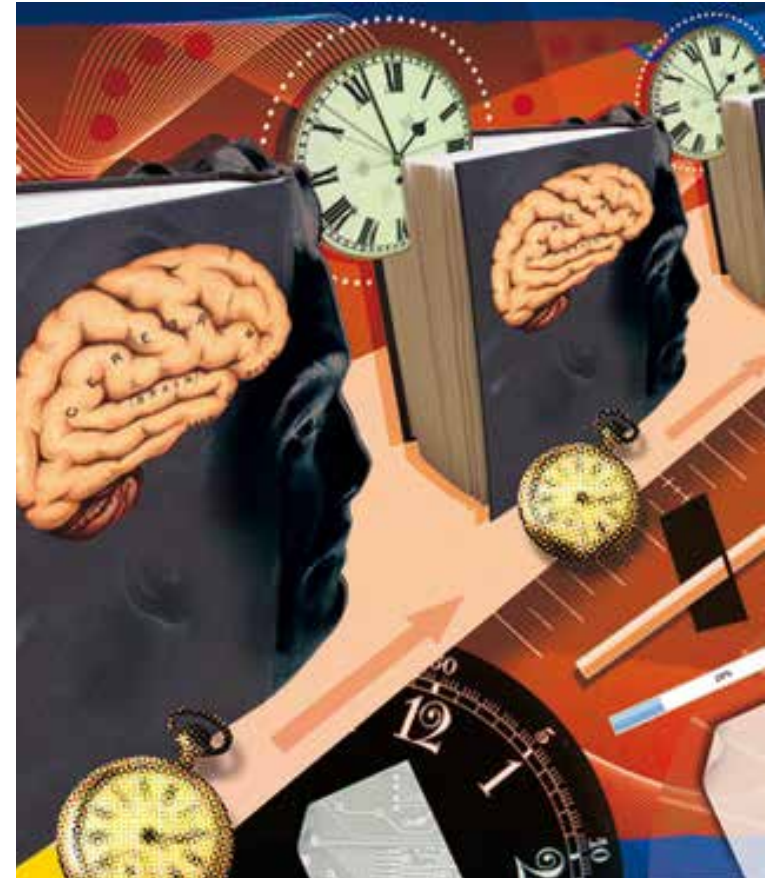- Sending emails via GMail by using gestures and voice
- Kinect, C#, WPF, internet

Subtask Identified

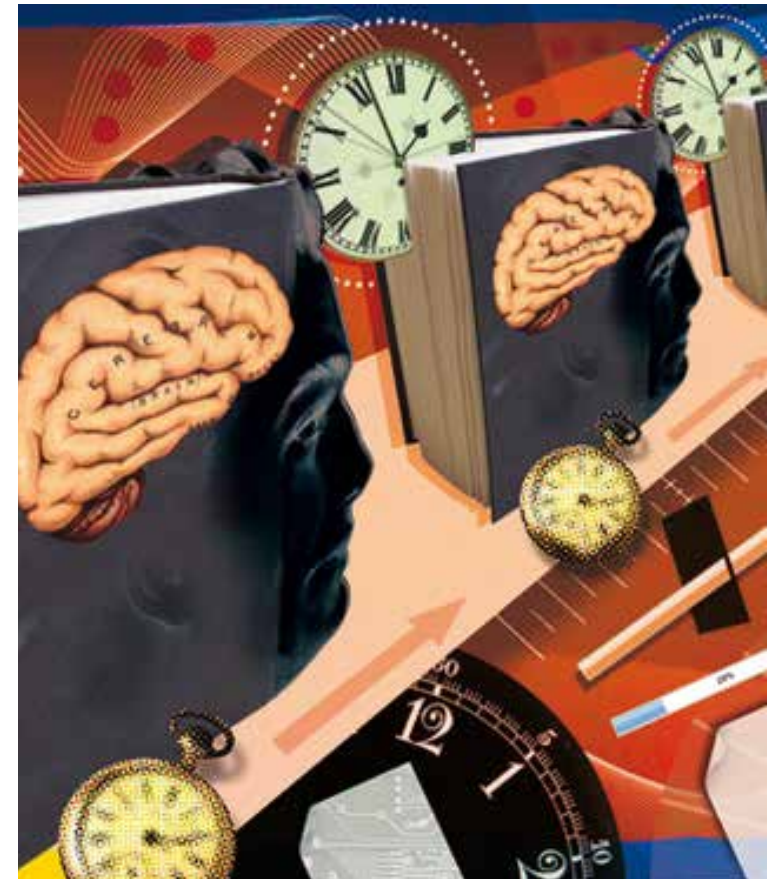Speech Recognition   Graphical Interface   Graphic Design

Difficulties

- Implementing the Google API speech recognition
- How to press the buttons, working with the Z axe
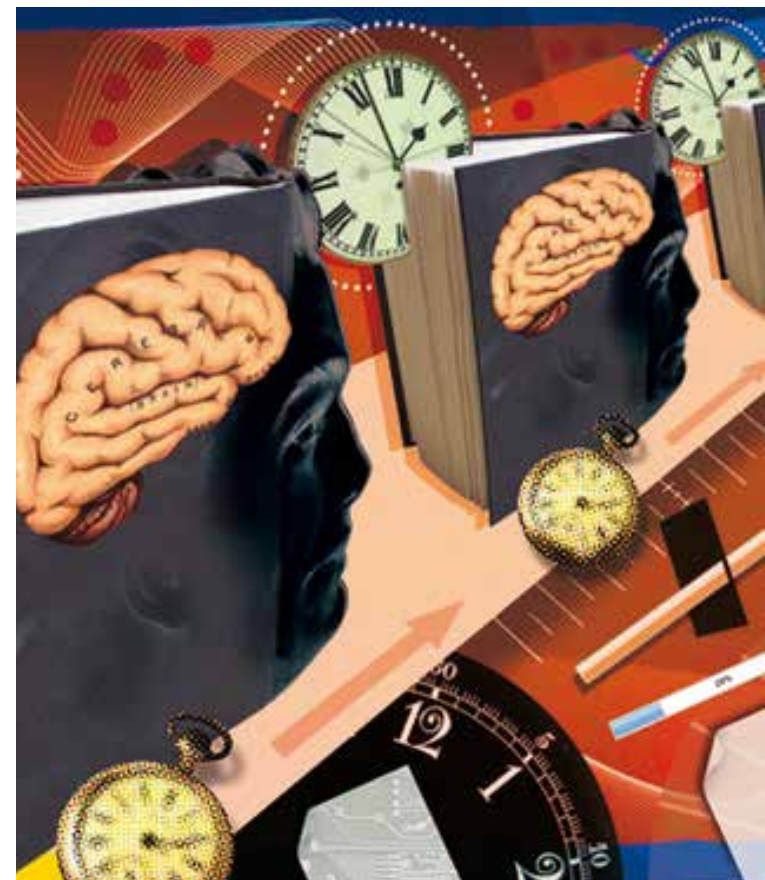- To position the mouse point on the center of the hand accurately

What was learned?

- Improve the knowledges about using Kinect
- Using speech to text technology
- C#
- Working in an international group
- Share and explain ideas
- Understanding possible difficulties depending on various types of disabilities or handicaps
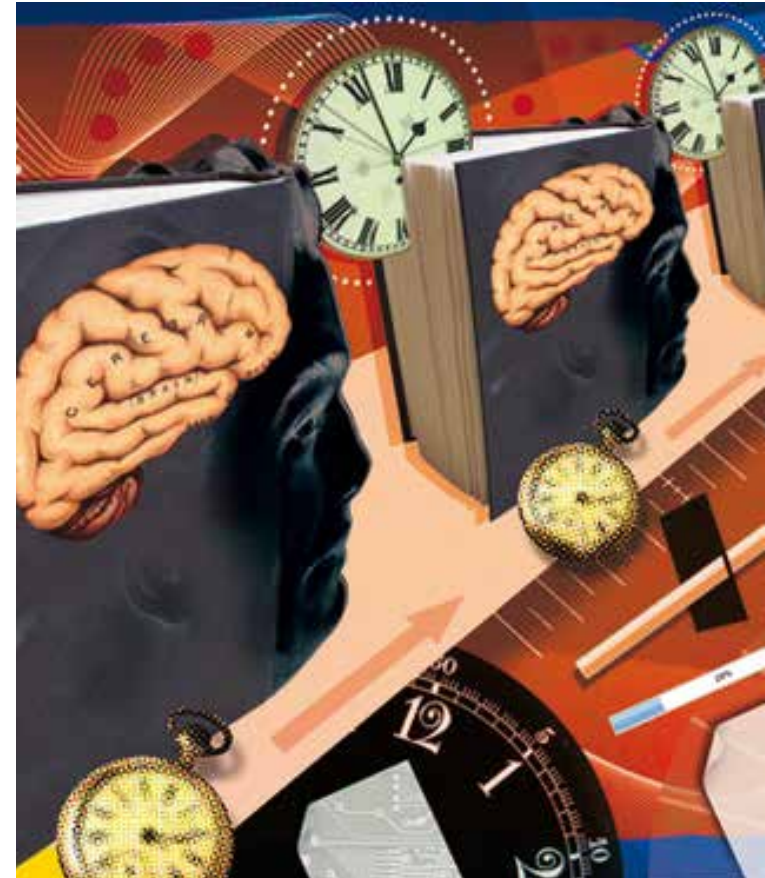
What was left not done and can be done in the future?

- Translate words into pictogram
- Sending the messages by other ways, as Whatsapp, SMS, Facebook…
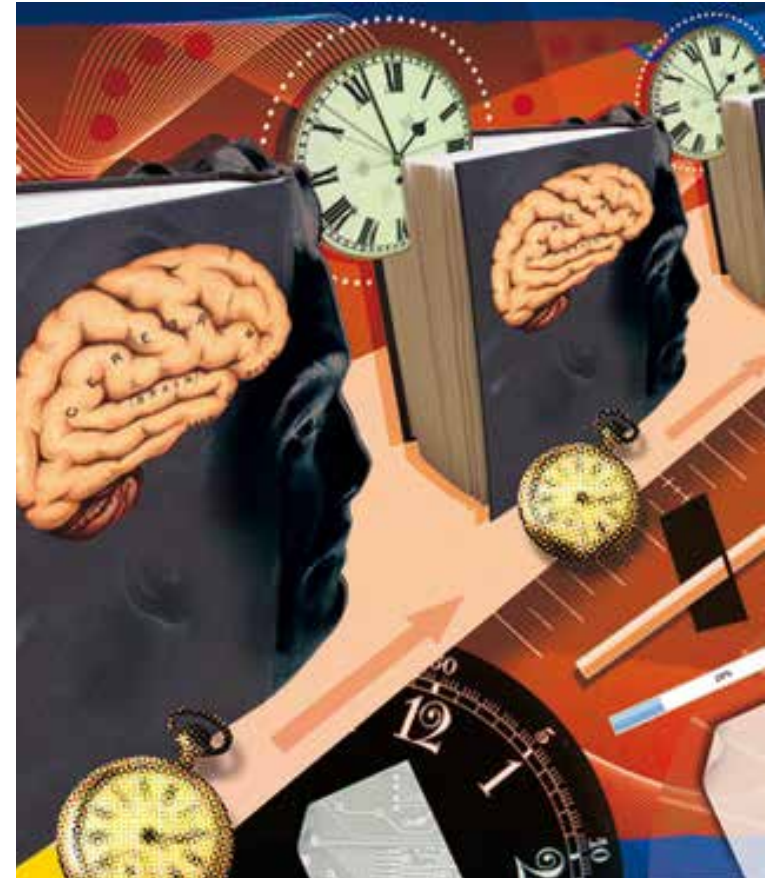- Add more people to the list of contacts

Where we succeed and why?

- Send email
- The recognition speech to text
- Select between different people
- Hold successful communication within a team
- To accomplish the task in efficient way
- Adjust the speed of the pointer

Where we failed and why

- Implement other ways of sending messages
- Implement all features we would like to have in our application

Thank you!

IP Roma 2013