

VOICE Project and Year 2003





Canada-Europe eInclusion Symposium

Montreal-Ispra, 15 March 2007

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European Commission Joint Research Centre



Hallo from Italy!

Ispra on the Major Lake









Hearing impairment



- ◆ 25% of EU elderly or disabled (hearing loss increasing with age)
- ♦ 5% of EU deaf or hard of hearing

Just imagine being one of Europe's...

- \diamond 300,000 deaf (0.1% of the population)
- ◆ 3,000,000 partially deaf (1%)
- ◆ 30,000,000 hard of hearing, disadvantaged and foreigners(10%)

...and try to read my lips.







Deafness



DEAFNESS: a disability concerning the SPEAKER and his control of the communication (*visual*) channel

We may help a person with physical impairment by pushing, We may help a person with visual impairment in crossing the road,

We, the *able*, help him in HIS disability!

DEAFNESS implies a communication limit

We must help a person with hearing impairment in understanding our message:

from spoken VOICE to visual TEXT HIS communication problem becomes OUR disability

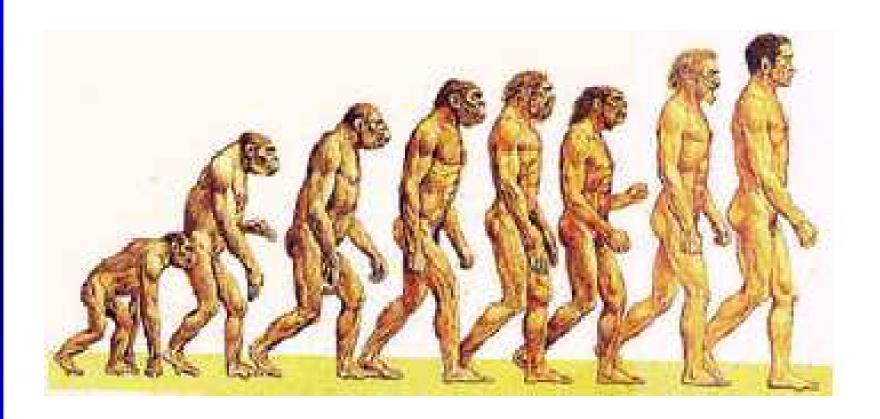






The origins









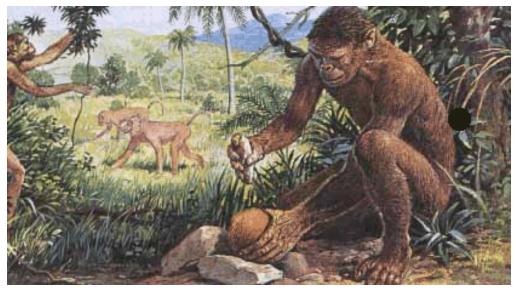




The first sounds









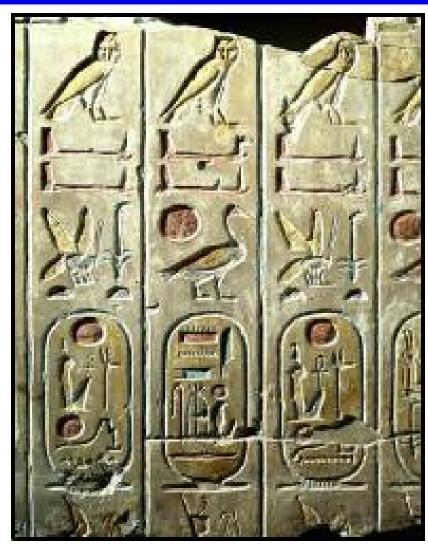






The written language













Sounds and cadence













Rhythms











Phonemes











VOICE Project's basic idea

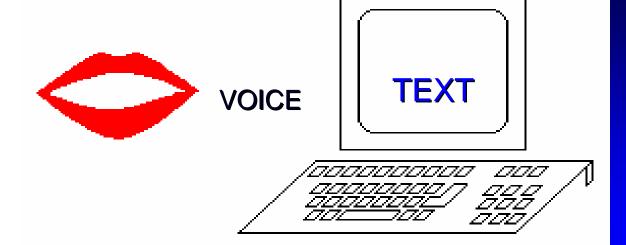


To promote the use of voice to text recognition systems for the deaf.

Example: words may be recognised by a PC and converted into text, enabling a deaf person to *read* off a monitor what is being *said*.

Subtitles for:

- school
- conferences
- TV transmissions
- telephone conversations



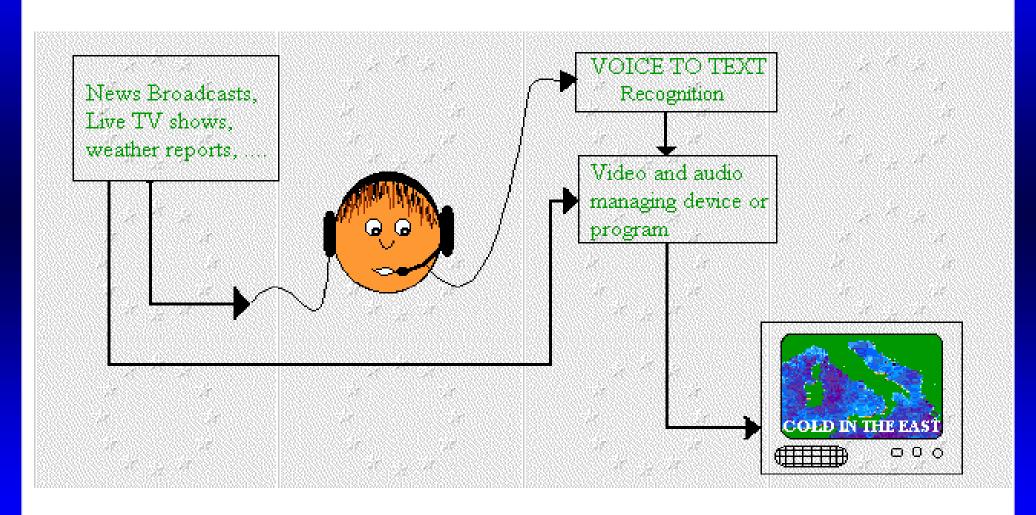






TV Subtitling





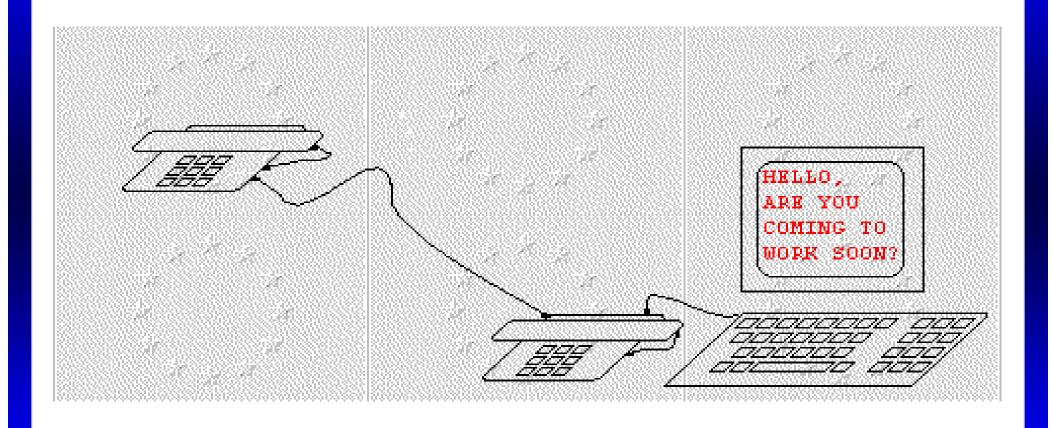






Telephone Recognition











Telematics Applications Programme



VOICE Accompanying Measure: Giving a VOICE to the deaf, by developing <u>awareness</u> of VOICE to text recognition capabilities

Objectives:

- develop prototypes of voice systems for the deaf
- demonstrate the prototypes to relevant organisations
- use a VOICE Forum on the Internet as a Project tool
- organise meetings / workshops using the prototypes

Partners

- JRC-ISIS, Kepler University of Linz, SoftSol-FBL, ALFA, CECOEV, IHSB
- Duration: 2 years (1998-2000)







Conferences, School or University



A slide is projected on the left screen by the speaker: the text generated by the speech recognition system is converted into subtitling lines and projected on the right wall-screen, under the speaker's image taken by a videocamera.









Subtitled videoconference



A deaf user communicates with a colleague: the text generated by the speech recognition system is converted into subtitling lines and overlaid onto the correspondent's video image.









The VOICE Project's results



Subtitled videoconference









- Tests at schools
- Broadcasts RAI, RTBF, TV5, contacts TV Europe and Canada.
- Portable PC with glasses



Subtitled workshop







Montreal 2000





RQST
Richard Mc Nicoll



