

eNTERFACE 2005 Daily

Wednesday, August 3rd

Multitel - Multimodal Now! -



Under the Objective 1 and Phasing Out programmes of the European Community and the Walloon Government, the TELECOM and TCTS

departments of the Faculté Polytechnique de Mons (FPMs) and the TELE Lab of the Université Catholique de Louvain (UCL) received funds for a series of projects under the generic name "MULTITEL" (<http://www.multitel.be>).

At the end of 1999, Multitel acquired the status of an independent research centre in the form of a non-profit organisation, which should be able to finance itself in the longer term, through European and Région Wallonne grants but also through industrial technological transfers.

Multitel is now a centre of excellence, with a multi-disciplinary team of around 80 people, including engineers, scientists and technicians, plus a commercial structure. This team works closely with the academic staff of the FPMs and the UCL.

Multitel possesses various scientific skills as optical telecommunications, networking, sound and image compression, speech recognition and synthesis, cryptography, data fusion or intelligent videosurveillance. A more transversal activity dealing with multimodal interfaces is developing very fast, that is why Multitel is involved in the sponsorship of eNTERFACE. We asked to Dr. Alexandre Girardi, research coordinator and co-leader of the speech and signal processing department, to give us his impressions on multimodal interfaces developed now for commercial purposes.

"Today new input/output formats (such as cameras, positioning devices, accelerometers) have opened the opportunity to exiting new challenging human-machine interaction goals, for wider audiences (e.g. visually impaired people). With this new modalities, one can build Multimodal Interfaces where computers can make efficient use of multiple modes of communication. For example, one would like to get information about a store. He points to the store in a map and asks "what is the menu?". This is obviously much faster than describing the store only by voice and then asking for the menu. Combining speech and pointing devices is the new phenomenon that is starting to get out from large organization with standards such as W3C X+V and SALT to build such applications. Those standards target large market devices such as mobile phones, however they are limited to speech, keyboard and some pointing devices, where the user can make use of one modality at a time. Going beyond such interaction limitations we have research initiatives such as the ICARE, WearIT@work and F3M projects. Those projects are enabling users to change of modality in the middle of an operation, profiting from all its input/output modalities. With the result of such projects we can expect wearable multimodal interfaces to be part of clothes, glasses and used in more unconstrained environments. They will succeed on their goal if they can render man-machine interfaces more fun to use, adding value, giving us faster access to information, connecting us to more people or simply responding according to our preferences in a more natural, intelligent and unobtrusive way (for example with a phone that shakes instead of ringing while we are watching a movie in the Cinema just because it knows where it is ;-)."

Alexandre, Céline & Matei

eNTERFACE - Multimodal Databases -

As decided last Friday, recordings for two databases have already begun in a special room.

The first one, mainly conducted for project #2, is a multimodal emotional database. Images (facial expressions) and speech (mainly prosody) are recorded. These recordings will prove that face and prosody are really complimentary for describing emotions.

The second one (project #5) also records videos and speech but with the normal facial expression. The sound and video synchronization is important as it could be used for lips reading. Facial and speech features could also be extracted for biometric identification.

For both databases, speech is recorded in two languages, the mother tongue of the speaker and English. All eNTERFACE members should participate in order to get two consistent databases. Both of them will be freely available on the web. Moreover, increasing the number of recordings could be one of the tasks of eNTERFACE'06.



Simulation One - Free video projection -

The eNTERFACE video club presents a free projection of the film "Simone" starring Al Pacino. The projection will be held this evening at "Auditoire 03" located at "rue de Houdain" at 20h00 as usual.