The (IM)2 Newsletter
Multimodal Spring School in Anzère, (IM)2.SA in Zürich, US media tour Switzerland.

The MDM team reports on scenario based meetings they recorded in the IDIAP Smart Meeting Room.

Issue N° 25
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INTERACTIVE MULTIMODAL INFORMATION MANAGEMENT

The (IM)2 Newsletter

Every month the (IM)2 Newsletter brings you the latest and hottest scientific and administrative news about the (IM)2 NCCR and related topics

(IM)2 Summer Institute '04

As announced previously, this year's (IM)2 Summer Institute will take place in the framework of the First International Workshop on Multimodal Interaction and Related Machine Learning Algorithms (MLMI'04), June 21–23. More precisely, (IM)2 members are encouraged to attend the sessions on Monday, Tuesday and Wednesday morning, where papers and posters submitted from all the various projets will be presented – not to forget of course the invited speakers. The detailed program will be announced at a later date.

On Wednesday afternoon, several project-specific events will take place. For (IM)2 we will probably organise a free-format PhD student gathering. Again, exact details to follow. Rooms are available on Thursday for any IP- or topic- related meeting. In case of interest, please get in touch with Nancy-Lara at robyr@idiap.ch.

As usual, the workshop (including coffee brakes, lunches on Mo+Tu+We, dinners on Mo+Tu) is free for (IM)2 members. Travel and accomodation are at your own costs.

Spring School in Anzère: A Great Success

The 31st Spring School of the "3e Cycle romand d'informatique", organized by the university of Fribourg, was held from February 29th to March 5th in Anzère. Leveraging upon (IM)2, this year's talks were organized around Multimodal and Mobile Interfaces. More than 60 people attended the event, a number that correponds to an increase of nearly 50% in comparison with previous spring schools.

Despite the sunny weather and the nice snow, the participants did not desert the dark lecture room. They appreciated the outstanding quality of all the presented tutorials. Wolfgang Wahlster, from DFKI, impressed the audience with a broad overview of interaction techniques gathered from many impressive research projects he has conducted before. Brygg Ullmer, from Zuse Institute Berlin, showed in an attractive manner the high potential of so called tangible interfaces. Michel Beaudoin-Lafon from University Paris-Sud has given a very pedagogical tutorial on design principles for graphical interfaces. Finally, Johanna Moore and Oliver Lemon from Edinburgh covered the complex matter of natural dialog modeling.

More information on the content of the talks can be found on diuf.unifr.ch/diva/springschool04.

From left to right: Prof. Michel Beaudoin-Lafon (Paris-Sud), Dr Brygg Ullmer (ZIB), Prof. Wolfgang Wahlster (DFKI), Prof. Johanna Moore (Edinburgh), Prof. Rolf Ingold (Organizer), Dr Oliver Lemon (Edinburgh)

Back in the dark lecture room, after a sunny afternoon

(IM)2.SA Workshop

The (IM)2 Scene Analysis team had its first of a planned series of concertation meetings in Zurich on April 23. Topics included the tracking and detection of people. In about 10 presentations the PhD students involved in this work - from EPFL, ETHZ, IDIAP, and Uni. Geneva - gave an impressive overview of the results achieved so far. Activities span a wide range, from viewpoint selection, and head and people detection, over the tracking of multiple persons based on the analysis of behaviour, up to head pose and gesture analysis, the use of pointing as intuitive HCI, and the effective compression of facial images. These topics are approached from different and complementary directions: 2D vs. 3D, monocular vs. multi-view based.

At the meeting, the participants discussed setting up a common (IM)2.SA video repository for testing, as well as criteria to assess the performance of trackers. Moreover, several issues on which collaborations are possible have been identified, and exchanges initiated.

A similar (IM)2.SA workshop on object recognition / classification is planned for the near future.

Part of the (IM)2.SA team in the ETHZ main hall

US media tour Switzerland

On April 20, approximately 20 US journalists representing major titles in IT, business and biotech stopped at IDIAP in the framework of a three-day tour of "Innovative Switzerland" orgranised by the DEWS – Development Economic Western Switzerland. Presentations about IDIAP, (IM)2, AMI, brain-computer interfaces and meeting browsers, as well as the IDIAP spin-off Spiderphone and the Ark lead to fruitfull discussions. We expect this event to generate positive press coverage in the US.

Events

First International Workshop on Multimodal Interaction and Related Machine Learning Algorithms (MLMI'04) 21–23.6.04

The first Workshop on Multimodal Interaction and Related Machine Learning Algorithms, a joint initiative of the AMI, PASCAL, (IM)2 and M4 projects, will be held in Martigny and organized by IDIAP on June 21–23. See www.idiap.ch/events/workshop-mlmi04 for the latest news. Deadline for registration: **10 June 2004**.

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Schweizerischer Nationalfonds
Fonds national suisse
Swiss National Science Foundation

The smart meeting room at IDIAP, including its complete recording infrastructure (see Newsletter issues 19 and 21), is used by the IDIAP meeting recording team, but is also available to any team within (IM)2. MDM reports on the recordings they have done.

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INTERACTIVE MULTIMODAL INFORMATION MANAGEMENT

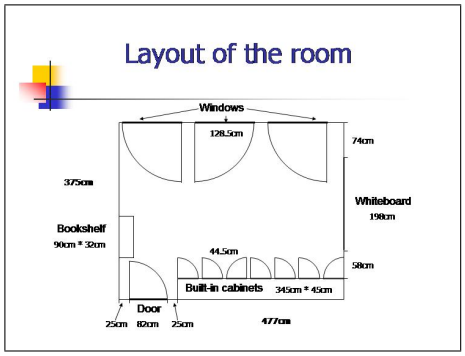
MDM records over 7 hours of scenario based meetings in the IDIAP Smart Meeting Room

To date, the IM2 Multimodal Dialogue Management (MDM) group has recorded 12[1] meetings in the IDIAP Smart Meeting Room, over 3 separate recording sessions. The meetings range from 20-50 minutes in length and predominantly focus on an artificial scenario; furnishing a departmental reading room/lounge.

The purpose of the MDM recording sessions was two-fold; first to contribute to the new meeting corpus and second to create a small data set that is specifically geared towards use in a series of user-driven multimodal interface design and evaluation experiments that we intend to run within MDM.

Pre-recording preparation

In order to prepare the participants before the recording sessions, a general description of the task and an overview of the plan of the recording sessions were provided in advance. However, neither document gave specific instructions as to the expected meeting or dialogue actions and participants were encouraged to act as freely and naturally as possible.



Example of a pre-circulated document

Each participant had also been asked to prepare a slide presentation with their choices of furnishings, keeping in mind constraints specific to the scenario such as a predetermined budget and the physical space available in the room. The participants could choose their own pieces of furniture or select a subset from a set of possibilities distributed to them before the recording sessions.

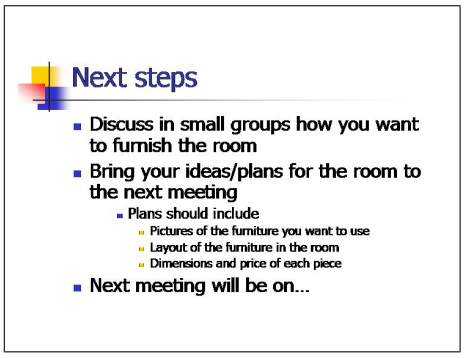
The meetings

Each of the three recording sessions produced a set of meetings, where each set, although recorded on the same day, was meant to be a series of meetings on the same subject, spread out over time. The first meeting in a set, done as a stand-up presentation by a meeting chair, served to set up the scenario by laying out the situation and the various constraints involved, and participants were given the opportunity to ask questions. Subsequent meetings involved presentations of ideas, discussion of those ideas and finally making decisions as to what furniture would be bought and how it would be arranged in the room.

The data

The meetings that were recorded reflect a variety of meeting related phenomena both in terms of group actions and dialogue acts. These include sit-down and stand-up slide presentations using both text and images, discussions, arguments, voting, monologue and dialogue, meeting agendas, note-taking, reference to and use of physical artifacts such as documents, and whiteboard use.

Also, the fact that the meetings were recorded in sets allowed not only for topic continuity across a data set, but also for the inclusion of events such as references to preceding meetings and diary consultation in the case of selecting dates for future meetings.



Slide from the first meeting

Using the data

Since the data conforms to general specifications for the new corpus of meetings, we hope that it will be useful to all partners for their research. In the specific case of MDM, once the data is manually transcribed and annotated to suit the specific needs of the MDM experiments, it will serve as the initial test set of meetings which the users participating in the experiments will be accessing.

Overall impressions

We found that the room furnishing scenario, despite being artificial, worked quite well. It naturally allowed for a wide variety of meeting actions and events, even within as few as 3 meetings, and the participants found it quite easy to become actively involved in the topic.

Additionally, the design of the meeting room coupled with the recording procedure and the available technology made the recording process unobtrusive, comfortable and natural.

We would like to thank the IDIAP meeting recording group for their efforts in making the recording process easy and friendly.

(IM)2.MDM - al

[1] Unfortunately, due to some technical problems with the recordings, only 8 of those meetings will be available for use.

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