AMI

AUGMENTED MULTI-PARTY
INTERACTION

Newsletter

Contents

News

INTERSPEECH 2006

**The Ninth International Conference on Spoken Language Processing (Interspeech 2006 — ICSLP) will be held in Pittsburgh, Pennsylvania, under the sponsorship of the International Speech Communication Association (ISCA).
17-21 September 2006**

Additional information:
http://www.interspeech2006.org/

SLT 2006

The first International Workshop on Spoken Language Technology (SLT), sponsored by IEEE and ACL, will be held at the Aruba Marriot, December 10-13, 2006

Additional information:
http://www.slt2006.org/

www.amiproject.org

AMI Meeting Corpus Goes Live

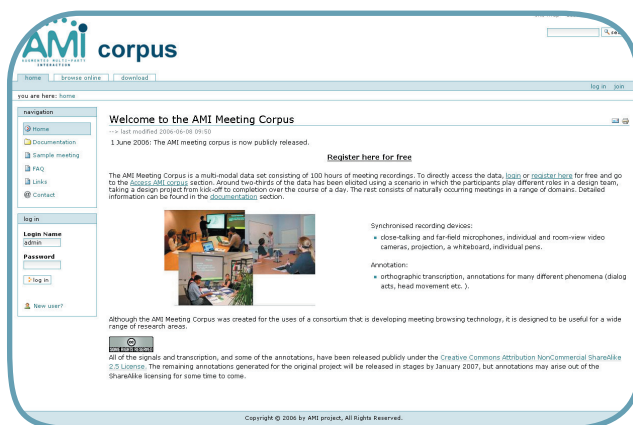**AMI**corpus

The AMI Meeting Corpus: Three rooms, 100 hours of meeting data

June witnessed the public launch of more than one hundred hours of multi-modal meeting data – including the entire database of signals, transcriptions, and annotations, along with digitized handwritten notes, whiteboard, and slide content. Data are freely available at http://mmm.idiap.ch/amicorpus/, where registered users can browse meetings online using SMIL presentations, and participate in a discussion forum. The corpus can also be accessed directly, with a documentation tree providing detailed information about the collection, pre-processing, transcription, and annotation of data. All signals, transcription, and annotations are released under the Creative Commons Attribution Non-Commercial ShareAlike 2.5 License, which allows users to download, copy, distribute, and display the data provided that derivative work is distributed under an identical license and is not used for commercial purposes.

AMI expects the corpus to become an invaluable resource to the broader research community, as it provides high-quality data for doing work in such fields as computer vision, discourse analysis, gesture, group dynamics, machine learning, multi-modal signal processing, and non-native speech recognition. To widen its appeal, 500 copies of a data set taster DVD (included in this issue) are being distributed to a range of people, including archivists, cognitive scientists, computational linguists, corpus linguists, engineers, and psychologists. The DVD includes all signal information, transcripts, and available annotations for a single meeting. It also features demos of both the JFerret Meeting Browser and NITE XML Toolkit, and a preview of the AMIGram tool for multi-modal corpus annotation.

www.idiap.ch/amicorpus

Cover Story

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AMI Meeting Corpus Goes Live

The AMI Meeting Corpus:
Three rooms, 100 hours of meeting data

The database consists of three types of meetings, roughly two-thirds of which were elicited using a fictitious design team scenario in which participants were assigned roles and met over the course of a day to create a prototype for a new television remote control. Within this context, AMI researchers were able to standardize data to a large extent by using experimental control to garner substantial contributions from each participant, and obtain observations with greater clarity and confidence. A much smaller subset of the corpus comprises less controlled elicitations for different tasks, e.g. a series of meetings by an existing work group to plan a fictitious office move. These again provide more control than in natural data, while providing a first step towards thinking about combining data from disparate sources. The third set of meetings comprises naturally occurring, or non-scenario, meetings that cover a range of topics. All meetings are in English, but a large proportion of the participants are non-native speakers.

Each meeting took place in one of three instrumented rooms, constructed at IDIAP, the TNO Human Factors Research Institute, and the University of Edinburgh.
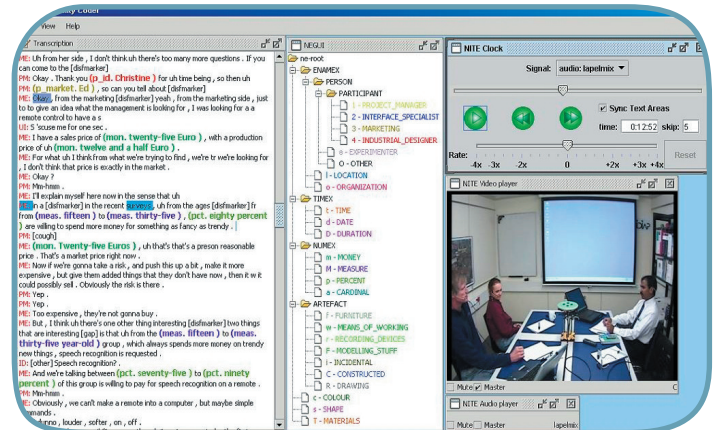
Data were recorded using close-talking and far-field microphones, individual and wide-angle video cameras, and a mixture of auxiliary devices for capturing handwritten notes, whiteboard and slide content. Media streams are time-stamped and synchronized so that audio and video samples are associated with any pen strokes made or presentation slides on view at the time.

NXT-formatted orthographic transcriptions are available for the entire corpus and feature microphone channel IDs for distinguishing speakers. Data were handled in two passes to ensure high quality transcripts, and have been time-stamped at the word and phoneme levels using forced alignment techniques. Transcribers worked from a written manual, which is accessible by selecting the link at the top of the 'Transcription' web page.

NXT's Named Entity coder – one of many tools used to annotate and view AMI data

Annotations are also available for a large portion of the database, including the labeling of dialogue acts, focus of attention, individual actions, named entities, and topic segments, as well as the generation of abstractive and extractive summaries both for scenario and non-scenario data. The screenshot above shows

one tool used to annotate the corpus. Since several of these and other labeling schemes – e.g. person location and AmiEmotion – are still under way, AMI will continue releasing annotations in stages until January 2007. Subsequent annotations may arise out of the ShareAlike licensing for some time to come. Within the documentation tree, users can access a table to find out which annotations are available for each meeting in the corpus. Links to current versions of the written guidelines for each scheme are on the 'Annotations' web page. All completed annotations are available in NXT format, making it easy to query the data and perform integrated analyses.

Users wishing to download signals, the transcription, or annotations can choose from a selection of mirror sites for improved access. Each download comes with the ShareAlike license, a README file with a description of the contents, and a manifest listing all of the files in the download. Due to space constraints, video signals are available in a reduced size format. Full-size videos can be obtained by ordering the corpus on firewire drives.

Requests for additional copies of the taster DVD should be emailed to tasterdvd@amiproject.org.

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Vision Video and Electronic Brochure bring AMI to life

For many people, the future is something that they watch or read about in science fiction movies and books. Even vendors who might be involved in creating meeting technologies focus most of their attention on solving the problems that people have with technology today.

Clearly describing a future in which meetings are conducted differently is very challenging. Just using words or some slides is not sufficient and the delivery of the vision is not consistent from one presenter to the next.

In the perfect scenario of the future, people participating in meetings are well prepared and have continuous access to rich archives of past events and even have the benefit of seeing and hearing people at a distance without delays or annoying artifacts. Employee and personal productivity will be greatly enhanced and the types of meetings we participate in could be more varied, involving experts when they are needed and permitting those who are not needed to excuse themselves.

Project objectives

The AMI project technologies will be valued when not only technologies are integrated but also when business processes will be changed. In order to illustrate the benefits of AMI technologies in products of the future, the AMI Vision Video was prepared. The Vision Video depicts a series of meetings in an architectural firm. The client has a very complex challenge and wants a solution quickly and without great expense.

In the AMI Vision Video and Electronic Brochure, a simple story introduces the problems we encounter frequently when many people are in meetings and those who need to be are absent. In the remainder of the video, the AMI technologies "come to the rescue" of the architect and his team of apprentices.

In order to permit the recipient of the vision video and electronic brochure on CD-ROM to explore and learn about AMI research underway, there is a tab which when pressed leads to an icon-based interface. By clicking on any of the icons, the person begins a short video segment in which one of the people playing a role in the vision video explains what they feel is valuable about the technology in a real world situation. Following the short testimonial, each movie shows a different technology on which AMI Project scientists are working.

This project also permits the AMI Project scientists, experts in their fields, to be in control of the content that is used to visually describe their work and the state of the art in their fields. By hearing the voices of those who are working on the research, audiences understand that the work is being conducted by experts, not actors.

Results

We have found when showing this video to audiences who are unfamiliar with the AMI Project they quickly gain the context for the project's research and can then explore further the individual elements which are necessary for the development of rich and complete solutions.
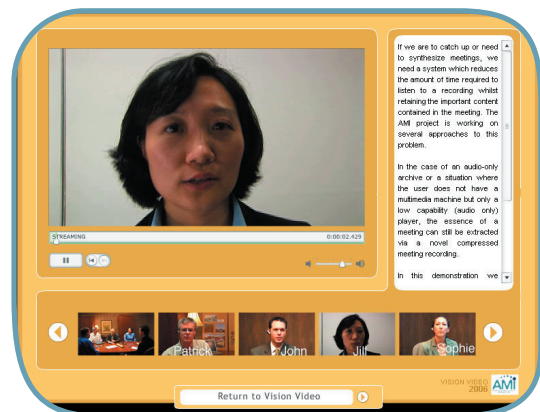
This CD-ROM has been distributed to over 350 people who are our target audience for technology transfer. Some people have received the CD at the Wainhouse Research European Forum. People who provided their contact information and requested a copy at CeBIT received it via the mail. We have also shown the video and distributed it to the communications officers of the Swiss National Science Foundation Centers for Research Excellence.

Recipients of the CD-ROM have shared with us that they are also passing along the information to their colleagues and they quickly understand the role that the AMI project could play in their future working methods and, in particular, how AMI can enhance business meetings without requiring dramatic changes in user behavior.

Future plans

Now that the video and the movies showing samples of AMI technology under development are finished, they are being prepared for public access from the AMI Project web site.

In addition to people who are deploying meeting technologies and who offer products and services for meetings, there are many other audiences to whom the project will provide the vision video and electronic brochure. Experts in meeting facilitation, meeting facility management, futurists and the media are among other groups who will be able to benefit from watching the video and understanding more about the project.

We are also encouraging more of the AMI scientists to prepare screen movies about their work and we will integrate these as well as other improvements in future editions of the CD-ROM. By delivering the content in digital format we can also include documents, white papers, slide presentations and other information-rich files which can accelerate the process of educating the marketplace about AMI technologies and the impact they will have on business meetings.
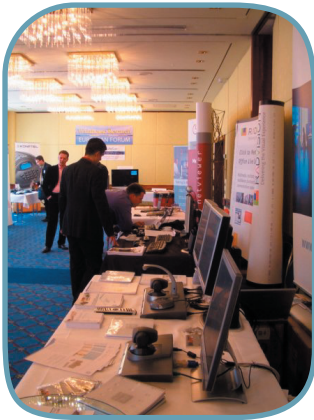
Newsletter

News and Upcoming Events

Wainhouse Research European Forum 2006 in Berlin

On April 18,29 and 20, the AMI Project was the Diamond sponsor of the Wainhouse Research European Forum 2006 in Berlin. Attendees of the conference are managers and experts within the real time collaboration and conferencing industry. Large as well as small European companies working in the field of conferencing, the media, meeting facility managers and meeting facilitators were also well represented.

Presentations and Networking
AMI Project speakers Herve Bourlard, Pierre Wellner, Wilfried Post and Rutger Rienks provided excellent presentations adapted to the needs of the audience. A keynote address by John Parkinson about the Future of Meetings was highly thought provoking and entertaining. The AMI Project co-hosted the All-conference banquet for 120 attendees. During the opening ceremony for the event, co-hosted with Microsoft Corporation, AMI co-director Steve Renals made remarks, welcoming attendees and encouraging interaction with the project in the future to close the gap between research and commercial products leveraging the results of the AMI project.

The Showcase area is ready for visitors

Outcomes/Impact
The AMI Project met its objectives by reaching its target number of highly qualified product developers, integrators and end customers for future AMI technologies. The event was successful in terms of reaching the project's technology transfer goals. Over 230 highly qualified people using, building and selling conferencing and collaboration technologies registered

and 200 attended this event in person. The AMI Project Vision Video was shown, the electronic brochure distributed on CD-ROM to all attendees and a full day program of sessions focusing on the future of meetings and AMI research towards the project vision was delivered.

It was also valuable for AMI Project scientists and technology transfer professionals to gain exposure to the current state of the art in business solutions for conferencing/collaboration in enterprise, government and education markets.

AMI Project exhibiting in the IST 2006 Showcase

In November 2006, the most important European event in the field of Information Society Technologies will coincide with the launch of the EU's Seventh Framework Programme for Research and Development. IST 2006 includes a high-level conference, an exhibition of cutting edge research results from across Europe and a programme of networking sessions and workshops.

The AMI Project has been selected by IST to participate in the exhibition in Helsinki. Interactive demonstrations of the latest AMI technologies will be shown and experts will be available to discuss the project's vision, the results accomplished to date and to expand the project's relationships with the research as well as business communities.

To learn more about the IST 2006 event, visit http://europa.eu.int/information_society/istevent/2006/conference/index_en.htm

To make an appointment to meet with AMI Project directors and scientists, please contact Christine Perey - cperey@amiproject.org

IDIAP 15 Anniversary Workshop

As part of its 15th anniversary celebrations, IDIAP is hosting a workshop on 12/13 September to celebrate research progress made over the years and layout the scientific challenges ahead. World

renowned invited speakers will cover key developments made over the last 15 years in speech processing, machine learning, multimodal interaction, computer vision and information retrieval. In addition, talks by researchers will discuss current trends and research issues related to continued development in these ever growing and exciting fields.

Hand-in-hand with IDIAP's growth, the last 15 years has brought a maturation in the above research fields, leading to many theoretical and practical advances. In particular, the statistical paradigm has been prevalent in recent years, leading to a common framework within which many of the techniques applied in these different areas may be related. Whilst, therefore, a stronger understanding of the commonality of techniques now exists, each field requires specific insights for the continued and successful development toward solving substantial real-world applications.

Invited speakers are:
- Chris Bishop (Assistant Director Microsoft Research UK), who will cover developments in machine learning;
- Nelson Morgan (Director ICSI Berkeley, USA), who will discuss speech processing;
- Thomas Hofmann (Director IPSI Fraunhofer, Germany), who will cover Information Retrieval;
- Patrick Perez (Irisa/Inria-Rennes, France.) who will cover computer vision.

Talks are invited from students and researchers in any of the above fields, addressing either a theoretical or application issue. The Workshop will provide a platform to highlight research in front of world-renowned leaders in their fields, and enjoy interaction and feedback in a relaxed environment. Talks which discuss technical developments are welcome, particularly those which address key stumbling blocks in the application of theory to substantial real-world problems.

Please see http://www.idiap.ch/ws15/ for submission of abstracts of presentations. Registration for the workshop is free, but limited to 150 participants. A small number of travel grants (limited to CHF 500 each) is available.

Please see http://www.idiap.ch/ws15/ for registration and further details.