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AMI Quarterly Newsletter
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The AMI Newsletter

The AMI team wishes you a Merry Christmas and a Happy New Year

Scientific and Industrial Advisory Board meeting

On November 23rd 2004, AMI held its first meeting of the Scientific and Industrial Advisory Board including:

- Alejandro Jaimes FXPAL Japan, Fuji Xerox Co., Ltd,
- David Pearce, Motorola,
- Karen Spärck Jones, Cambridge University,
- John Bridle, Novauris Laboratories UK Ltd,
- Jordan Cohen, Voice Signal (excused),
- Alex Pentland, MIT Media Laboratory (excused),

The meeting was held at Hotel Metropole in Brussels, where the world most famous scientists and researchers met in 1911 (see picture below). Board members evaluated AMI's work for the last year and provided very insightful recommendations. In particular, they recommended that AMI be more end-user oriented, despite being at a very early stage in the development of the core technologies.

FP6 Projects Dissemination Review

The new EC Unit Head for Multimodal Interfaces, Bernard Smith, organized a mid-term review meeting on December 17 with all FP6 projects in the "Multimodal Interfaces" strategic objective. The aim of the meting was to assess the efforts of the projects towards dissemination and exploitation of the results. After discussions and presentations, EC representatives strongly recommended projects to focus their goal and vision, address IPR issues and produce strong deliverables.

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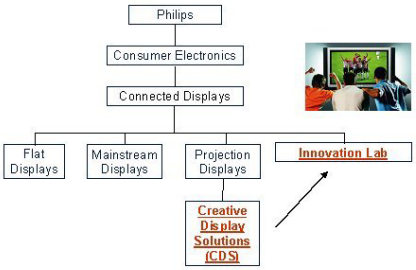
Discover who's behind AMI's sucess!

Each quarter, we will present two of the 15 partners that bring together their world class, skills and contribution to the AMI consortium. In the spotlight: Brno and Philipps teams.

Philips Innovation Laboratories

Due to reorganisations, in October 2004, all AMI-related activities at the business group Connected Displays of Philips Consumer Electronics were transferred from the group Creative Display Solutions (CDS) to the Innovation laboratories (iLab), both in Eindhoven (NL).



The Business Group 'Connected Displays' of Philips Consumer Electronics is a leading TV manufacturer in Europe with the majority of its development resources and headquarters based in Europe (Belgium and Netherlands), Singapore and China.

The iLab (75 persons) drives and provides new concepts and features creating innovations that have impact for the whole Group 'Connected Displays'.

Philips is one of the industrial partners in the project AMI.

In this project, Philips investigates how the AMI technology can be used to develop advanced wireless presentation systems, or how the wireless presentation functionality could be integrated in the AMI demonstrators: People are expecting that they can use the wireless network also for connecting to display devices and running their presentations from their mobile devices such as mobile phones and PDA's. Those mobile devices provide mass storage capabilities and are able to communicate with other devices in close proximity by means of short-range wireless networks.

Such presentation systems give the opportunity to elevate display device products into the new world of ubiquitous connectivity. In this project, Philips will see user requirements, user scenarios and specific technical issues such as: how to connect to a display device, multiple presenters at the same time, multiple presentation windows, automatic network configuration and formation using IEEE 802.11 (abgn), discovery of display devices by mobile device, specification of a UPnP service for exposing display devices as discoverable and accessible network resource, and distribution of functionality between mobile device and display devices for such presentation applications.

Philips is work package leader of work package 6: 'HCI, presentation components, and demonstrators'.

Philips' key-participants:

Bram van der Wall: graduated from University of Professional Education in 's-Hertogenbosch (the Netherlands) in Software Engineering in 2001. Position: Researcher Human – Technology Interaction. Experiences: He started at Philips ASA-laboratories in Eindhoven as Software Engineer. He has good knowledge of Digital Video Broadcast (DVB) and Multi Home Platform (MHP). Later he switched to Philips Innovation Labs as a researcher on wireless and net-enabled technologies. He also has experience in the interaction between users and new technologies.

Kees Tuinenbreijer graduated from University of Delft and Eindhoven (The Netherlands) in Electronic Engineering in 1980. Currently he is researcher and project manager of EU R&D project at the Innovation Lab of Philips CE. In the AMI project, one of the activities of Kees is related to leadership of work package 6.

BRNO

Brno team working on AMI is with the Department of Computer Graphics and Multimedia (DCGM) of Faculty of Information technology (FIT), Brno University of Technology (VUT). VUT is the second largest technical university in Czech Republic established in 1899 and FIT is its youngest faculty established in 2002.

The Speech processing group was created at the former Faculty of Electrical Engineering and Computer Science in 1997 and joined FIT at its creation in 2002. It is advised by Prof. Hynek Hermansky (IDIAP), daily operations are managed by Dr. Jan Cernocky. Thanks to its advisor, the group has significant research track in feature-extraction using long temporal patterns (TRAPs) and in using neural networks in speech recognition front-ends. The group is also experienced in modeling for speech recognition, very low bit rate coding, automatic determination of speech units and speech corpora collection – it participated at the creation of the first Czech large telephone database during SpeechDat-East project sponsored by the EC. It has also worked for several companies and Czech state-agencies.

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The key members of the group are Dr. Petr Motlicek (A/V processing), Dr. Lukas Burget (tools for speech recognition) and Petr Schwarz (phoneme recognition and keyword spotting).

The Computer Graphics Group of VUT, headed by Dr. Pavel Zemcik, was formed in 1996 at the Department of Computer Science of the former Faculty of Electrical Engineering and Computer Science under management of Prof. Ivo Serba (retired 1998). The group participated in several projects sponsored by the Grant Agency of Czech Republic, Ministry of Education of Czech Republic, and by industry. The team has an experience with design of complex and reliable image processing/graphics systems.

The main achievement is participation in the following projects: Electronics components visual quality control system for AVX Czech Republic (over 250 systems installed in various versions), red light violation documentation and speed enforcement systems based on image processing for Prague city council (over 100 installations), and tissue geometrical modeling and reconstruction system (in experimental use in Brno Medical Faculty Hospital). The key members of the group are Dr. Adam Herout (graphics), Dr. Premysl Krsek (medical technologies), Stanislav Sumec and Igor Potucek (video processing).

The main tasks of Brno team in AMI are

- acquisition and processing of data from mobile meeting room equipped with hyperbolic mirror,
- participation at the annotation of AMI data,
- keyword and acoustic event spotting in meeting data,
- support for speech recognition (training and recognition tools),
- detection, tracking, and recognition of body parts in the video sequences
- head/face detection and recognition and lips parametrization
- integration of developed algorithms into meeting browser.

http://www.fit.vutbr.cz/speech
http://www.fit.vutbr.cz/research/groups/graph

Brussels, March 7-8, 2005 - Hotel Metropole

The first AMI Technology Transfer Event will take place in Brussels, at the Hotel Metropole. The scope of this workshop will be limited to a day and a half, starting on March 7 in the morning and ending on March 8 after lunch, and an invited audience of around 50 participants.

Objectives
The main objective of this event is to bring together some of the major players in the development and industrial areas relevant to AMI, including: AMI scientific/technology leaders, external industrial partners, technology transfer institutions, investors as well as senior researchers really involved/ interested in such technology transfer.

For AMI, the goals of this workshop are to gain a better understanding of:

- Market and customer needs,
- Partners' objectives,
- Benefits and limitations of various national/international technology transfer systems or agencies to which AMI and partners have access.

Beyond this, it is clear that this workshop will provide a platform for information, meeting, cooperation, and interaction between industrial and research partners, and will also encourage further collaborations between different scientific and industrial partners.This workshop should also provide the consortium with a clearer view on the opportunities for products based on AMI technologies and a better understanding of the objectives of the partners in the AMI consortium and their feasibility. This event will also provide the framework for further discussion and exchange.

Agenda & Participants
The agenda of this workshop will consist of:

- Presentations of market studies by consultants (e.g. Perey Consulting, Accipio Consulting). It will offer an overview of the multimedia conferencing market, underlying technologies, known obstacles to market expansion and points out directions for future research.
- Talks given by large companies (e.g. Fuji-Xerox, Logitech, Philips), smaller industries working in the area of AMI (e.g., Quindi, W3C), investors (Lombard Odier Darier Hentsch) and technology transfer institutions.
- Panel discussions with industry, AMI partners, technology transfer institutions and market analysts.

If you have any questions regarding this event, please contact Frank Crittin (frank.crittin@idiap.ch)

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Joint Workshop on Multimodal Interaction and Related Machine Learning Algorithms

Royal College of Physicians, Edinburgh, Scotland, 11-13 July 2005

Following the highly successful MLMI-04 workshop held last summer in Martigny, we are delighted to announce that MLMI-05 will take place in Edinburgh from 11-13 July 2005. The workshop will be supported by several projects in the EU Multimodal Interfaces sector (AMI, CHIL, PASCAL, HUMAINE, SIMILAR), as well as the Swiss NCCR (IM)2. Like MLMI-04 there will be no registration fees for members of these projects.

All members of the sponsoring projects, as well as external contributors are invited to submit full papers for oral presentation, or extended abstracts for posters. The topics covered by the workshop are the following:

- human-human communication modeling
- speech and visual processing
- multi-modal processing, fusion and fission
- multi-modal dialog modeling
- human-human interaction modeling
- multi-modal data structuring and presentation
- multimedia indexing and retrieval
- meeting structure analysis
- meeting summarizing
- multimodal meeting annotation
- machine learning applied to the above

Format:
Days 1 and 2 will be plenary and poster sessions, featuring some invited speakers.
Day 3 will feature more specialist workshops, including the NIST Meeting Recognition Workshop 2005. Proposals for other workshops on this day are welcome (mlmi-05@inf.ed.ac.uk)

Important dates:
Submission deadline: 15 May 2005
Notification of acceptance: 6 June 2005

Supported by:
AMI, CHIL, PASCAL, HUMAINE, SIMILAR, (IM)2
http://groups.inf.ed.ac.uk/mlmi05/

MLMI-05 will include:
NIST Meeting Recognition Workshop 2005

The Rich Transcription 2005 Meeting Recognition Workshop at MLMI-05 on 13 July will bring together the community of researchers working in the domain of meeting recognition to discuss the challenges, the currentstate-of-the-art, and future plans and collaborations. Discussions will include the results of the 2005 Rich Transcription MeetingRecognition Evaluation including both Speech-to-Text Transcription and Speaker Segmentation technologies, related research work in the meeting domain, related international programmes, and future collaborations.

http://www.nist.gov/speech/test_beds/mr_proj/

UT AMI Partner joins HUMAINE Network of Excellence

The HMI (Human Media Interaction) research group of the University of Twente has become member of the EU FP6 Network of Excellence HUMAINE. HUMAINE (Human-Machine Interaction Network on Emotions: http://emotion-research.net).

This network is part of the IST thematic priority Multimodal Interfaces. The network started on January 1st, 2004, it lasts four years and HMI entered HUMAINE after the first year.

One obvious responsibility the UT HMI research group wants to take in this network is to link AMI emotion research activities to HUMAINE activities. Thematic areas addressed by HUMAINE are (1) Emotion Theories and Models, (2) Sign/signal interfaces, (3) Data and Databases, (4) Emotion in Interaction, (5) Emotion in Cognition and Action, (6) Emotion in Communication, (7) Usability, and (8) Ethics and Good Practice.

HMI will mainly contribute to the themes mentioned in (3) Data and Databases, (4) Emotion in Interaction and (6) Emotion in Communication.

For further information about UT-HMI activities in HUMAINE contact

anijholt@cs.utwente.nl.

UPCOMING EVENTS

The Virtuality Continuum Revisited

The Human Media Interaction research group of the University of Twente organizes a workshop on multi-party interaction during ACM-CHI 2005 in Portland (Oregon), USA, on Sunday April 3, 2005.

More and more we see the need to model multi-party interaction in the interface. Interactions take place in environments rather than in the traditional human-computer interface and multiple actors are involved, both human and non-human. The environments, e.g. a smart meeting room or a desktop storytelling environment, require the modeling of multimodal interaction: interactions between human users, objects, and agents that represent human users or that otherwise have been designed to play roles in the environment.
Interested researchers are asked to submit a 2-4 page position paper before January 3, 2005. More information about the workshop can be found at:

http://hmi.ewi.utwente.nl/conference/CHI2005

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