

Newsletter

www.amiproject.org

AMI c/o IDIAP Research Institute, Centre du Parc,
Av. des Prés-Beudin 20, P.O. Box 592, CH-1920 Martigny
info@amiproject.org - www.amiproject.org

Contents

COVER STORY

- AMI Consortium Community of Interest 1

FOCUS

- MLMI'07 Workshop in Brno 2
- e-Health Research Centre has joined AMIDA 2
- AMIDA Research Vision 3

INSIDE AMI

- News and Upcoming Events 4

News

AMI Consortium Community of Interest Workshop

September 11-13, 2007
de Rode Hoed
Amsterdam, NL

HCM2007 2nd International Workshop on Human-Centered Multimedia

September 28, 2007, Augsburg,
Germany - in conjunction with ACM
Multimedia 2007

© AMI Consortium, all rights reserved

AMI Consortium Community of Interest

The Community of Interest was formed to support the AMI project (AMIDA predecessor project). In the AMIDA Project, the Community of Interest has expanded and has been further supported to advance the AMI Consortium technology transfer objectives.

What is it?

A community of interest is a group of people connected to each other by a shared need to solve common problems, develop skills and share best practices.

A community of interest may contain subsets of people sharing information within their respective communities of practice.

In the case of AMIDA, the community of interest is composed of people representing their corporate employers or clients who are frequently at the interface between basic and applied research, and development.

We expect the members themselves to seek to experience new ways of using technology in meetings, and to overcome the technical and societal obstacles of multimodal communication at a distance by sharing knowledge and insights in a structured and constructive fashion.

The COI is not a scientific review committee, not a project advisory board and not a decision making body.



Alignment between AMIDA Project scope of study and COI Vendors Members' businesses

Products/technologies relevant to AMI	Companies for whom this is their PRIMARY business	Companies for which OTHER products in portfolio are =/+ important
Real-time team meetings (audioconferencing, videoconferencing, collaboration)	TANDBERG, Polycom, RADVISION, LifeSize Communications, Be Here, Spiderphone, Codian, Webex	Cisco, Hewlett Packard, Nokia, Logitech, Intel, Oracle, SMART Technologies
Meeting Recording	Quindi, Ceannard	Polycom, TANDBERG, Spiderphone, Media Publisher, Codian
Data collaboration and/or consensus building (CSCW)		SMART Technologies
Content management	Media Publisher	
Knowledge management		Oracle
Consulting about improvements in meetings	MG Taylor, Ceannard	Parkwood Advisors

Cover Story

MLMI'07 Workshop in Brno

MLMI'07

The fourth workshop on Machine Learning for Multimodal Interfaces, MLMI'07 [1], has taken place in Brno, Czech Republic on June 28-

30. The workshop, sponsored by the AMI Consortium and the IM2 NCCR, returned this year to Europe after a 2006 edition in Washington, DC. Launched in 2004 in Martigny, the MLMI series [2] gathers researchers working on machine learning techniques for processing and browsing multimodal input data, in human-human and human-computer interaction settings.

The first two days of MLMI'07 had different thematic orientations. The papers presented on the first day generally had spoken input or audio signals as their major focus, while those presented on the second day focussed on visual input (morning session), or content abstraction and browsing (afternoon session). The two poster sessions followed also a similar distribution. The first day included a special session presenting results from the second PASCAL Speech Separation Challenge [3], and the third day was dedicated to the AMIDA Training Day, followed the next week by the Summer school of the European Masters in Speech and Language [4].

The talks of the two invited speakers were related to the dominant theme of each day. Dr. Nick Campbell [5] from ATR's Media Information Science Laboratories in Kyoto, Japan, described striking analyses of non-verbal features that allow multimodal devices to make sense of human interactive behaviour. Prof. Vaclav Hlavac [6], head of the Center for Machine Perception at the Czech Technical University in Prague, demonstrated several applications of methods for statistical pattern recognition to visual processing tasks.

Overall, MLMI'07 featured 18 oral presentations – two invited talks, two PASCAL talks, and 14 regular talks – and 42 poster presentations, with a total of about 90 registered participants from a dozen countries. Besides the sponsoring projects, AMI/AMIDA and IM2, participants were also related to other large research projects on multimodal processing and browsing, such as CALO and CHIL, and some came from private companies. Local universities were well represented, as well as other European, US and Japanese universities and research institutions. The setting of the workshop, in the conference rooms and lobby of the Hotel Continental, fostered lively interaction among the participants, during the lunch and coffee breaks and at the social dinner, set up by the local organizers in the beautifully restored Rectorate building at the Brno University of Technology.

The oral presentations were recorded using IDIAP's Presentation Acquisition System, so that video, audio and slides are now available on the MMM server [7]. Revised versions of selected papers will be published in Springer's Lecture Notes in Computer Science series towards the end of 2007 (previous MLMIs appeared as LNCS 3361, 3869, 4299). And of course, plans are already underway for a successful fifth MLMI next summer!

Andrei Popescu-Belis, PC Chair, and the Organizing Committee: Hervé Bourlard, Jan Černocký, Pavel Zemčík and Steve Renals

- [1] <http://www.mlmi07.org>
- [2] http://www.mlmi07.org/index.php?id=past_mlmi
- [3] <http://homepages.inf.ed.ac.uk/mlincol1/S5C2/>
- [4] <http://www.cstr.ed.ac.uk/emasters/>
- [5] <http://feast.atr.jp/nick/>
- [6] <http://cmp.felk.cvut.cz/~hlavac>
- [7] <http://www.idiap.ch/mmm/talk-webcast/mlmi-07/>

e-Health Research Centre has joined AMIDA

In the spirit of adding "Distant Access" to AMI, the CSIRO e-Health Research Centre (EHRC) in Australia has joined as a partner of the AMIDA project.

Based in Brisbane, the EHRC was established in 2003 as a joint venture between CSIRO researchers and the Queensland Government. CSIRO, the Commonwealth Scientific and Industrial Research Organisation, is Australia's national science agency and one of the largest and most diverse research agencies in the world. The EHRC aims to improve the quality and safety of healthcare through an ICT research program focused on applied outcomes and active adoption by the health system. The centre has over 40 researchers working on projects in health data, clinical decision support, personal monitoring devices and biomedical imaging.

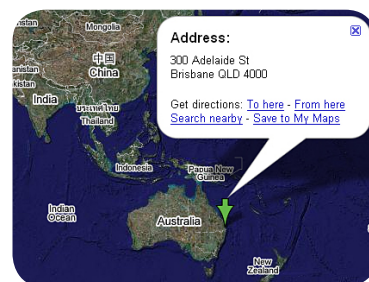
The AMIDA team at EHRC is lead by Iain McCowan, a former AMI researcher from IDIAP. Other team members include Darren Moore (also formerly from IDIAP), Ivan Himawan (QUT PhD student currently on AMI Trainee Programme at Edinburgh), and a further postdoctoral researcher (yet to be appointed). The group's focus in AMIDA will be on the use of AMI technologies to support clinical network meetings. Clinical networks are being increasingly used by health services to benefit from clinical expertise in improving safety and quality. Healthcare is a complex adaptive system, reliant on effective communication and multi-disciplinary decisions, and so technologies to support team communication

will be critical in enabling better healthcare. Research will focus on developing algorithms and a research demonstrator to analyse, structure and summarise both the content and the process of medical group discussions. The demonstrator will be designed and evaluated in the context of one or more clinical networks in Queensland Health.

As a partner from a non-member country, the EHRC's participation in AMIDA will be predominantly funded by an International Science Linkage (ISL) grant, recently awarded by the Australian Department of Education, Science and Training (DEST). The DEST ISL scheme provides competitive grants for Australian researchers to participate in strategically focussed, leading edge, international scientific research and technology collaborations, including participation in European Union Framework activities.

Further information on the e-Health Research Centre and CSIRO can be found on the following web pages:

- <http://www.e-hrc.net/>
- <http://www.ict.csiro.au/>
- <http://www.csiro.au/>



AMIDA Research Vision

The goal of the AMIDA project is to enhance human collaboration by developing algorithms and techniques that facilitate meetings and access to meeting-related information. In particular, AMIDA will support meetings whether these are remote, colocated, in real-time, or asynchronous, and provide efficient access to multimedia meeting and meeting-related archives. In order to reach this goal, AMIDA will develop several application scenarios centered around a Meeting Assistant framework. The particular deployment of Meeting Assistant applications will vary depending on bandwidth, computational constraints, and usage scenario (e.g., during a meeting, between meetings, remotely on a handheld device, etc.). Research in AMIDA, will therefore span several areas including the following: human understanding and modelling of meeting-related communication and collaboration; automatic speech recognition; automatic audio-visual indexing of multimodal interaction including localization and tracking, gesture, action, and attention recognition; automatic content abstraction and summarization and Multimodal Human-Computer Interaction

AMIDA Meeting Assistant Scenarios

The AMIDA project envisions the following scenarios in which the Meeting Assistant may be deployed.

Between Meetings

The Meeting Assistant will allow fast and efficient multimodal browsing and search of multimedia meeting archives, summaries, and related documents as well as accelerated playback of meeting videos.

During Meetings

The Meeting Assistant, in addition to providing the functionality above, optimized for use during meetings, will automatically generate multimodal indices of meetings in or close to real-time to support multimodal search of meetings in progress, as well as other functionalities. For example, the Assistant could automatically generate multimedia meeting summaries "on the fly," and suggest documents, past meeting segments or names of people related to the topic of discussion, and it could allow instant "replay" at various speeds of segments of the meeting in progress. It could also keep track of important items to aid in minute taking, for example, by maintaining a list of names, dates, and deliverables mentioned. In AMIDA, meeting participants will have the option of using any subset of the Meeting Assistant functionalities without recording the meeting in progress (e.g., saving only the end-of-meeting summary rather than the entire video or audio of the meeting).

Remote Meetings

In meetings where the participant is not physically in the same room as the rest of the meeting participants, the Assistant will provide additional functionality to facilitate engagement and collaboration. This functionality will depend on the particular device and bandwidth the participant is using. For example, if video is not available, the Meeting Assistant may show who is speaking at a particular time as well as visually represent any movement of the participants in the meeting room (e.g., someone leaves or stands in front of the audience). If video is available, the system could improve engagement by showing the remote participant where the other persons are looking, and so on.

Colocated Meetings

Meeting Assistants of the participants physically at the meeting would show who is participating remotely, and what documents they have contributed, among others.

Relationship to AMI

The Meeting Assistant will use AMI technologies to automatically index meeting videos, it will use the AMI corpus for use during meetings and for analyzing meeting requirements, among others.

	During	Between
Communication	Alert remote participants Improve engagement and presence	Exchange of meeting related data
Process	Track meeting agenda, time, etc. Floor control, process visualization	Relate items across meetings
Content	Automatic linking of content Browsing and search (gist, actions) Summarization, fast playback Track decision making	

Table 1. AMIDA application vision

Within the context of this Research Vision, AMIDA is developing an application vision. In the AMIDA application vision we will develop several demonstration applications, each of which will be a Meeting Assistant. Examples of the possible functionalities are shown in Table 1. While not all of these applications will be developed in AMIDA, the table shows the general framework: while most of the work in AMI focused on the bottom right quadrant (content browsing between meetings), AMIDA will address several of the other areas outlined in the table. In particular, the focus will be on developing tools for use during meetings, making use of and improving the core AMI technologies. These technologies are outlined in figure 2. The size of the text is a rough indicator of the level of importance of each of these technologies in AMIDA.



Figure 1. Core Technologies

News and Upcoming Events

AMI Consortium Community of Interest Workshop

September 11-13, 2007
de Rode Hoed
Amsterdam, NL

In September, the AMI Consortium is hosting a special invitation-only workshop designed to:

- establish fruitful, collaborative working relationships between COI members and AMI Scientists
- chart the course of future tools, products and meeting processes using AMI Consortium technologies, and
- develop proposals for new joint projects involving COI and AMI Consortium

The COI Workshop will be a very interactive, revealing and rewarding experience for the 50 participants. The agenda weaves together plenary presentations and breakouts focusing on AMI technology demonstrations prepared by AMI Scientists to highlight their best results to date. When in small groups, teams composed of AMI Scientists, COI members and Friends of AMI will fulfill assignments, discuss obstacles and opportunities, and plan for their futures.

Club of Amsterdam

Shaping Your Future in the Knowledge Society

On the evening of September 11, the AMI Consortium, Community of Interest members and members of the **Club of Amsterdam** will assemble in the De Industriele Groote Club to discuss Meetings in 2020. There will be an informal showcase using the AMI technology

demonstrations and the reception attendees will provide AMI Consortium feedback on the new project application vision and other elements.



A field trip to **TNO Soesterberg** on the morning of September 13 will provide AMI Scientists as well as COI members an opportunity to learn more about and have a closer look at the research facility where **TNO Human Factors** has been studying the impact of AMI technologies on business meetings. The visit will include a tour of several test environments developed for space and defense industry projects.

HCM2007 2nd International Workshop on Human-Centered Multimedia September 28, 2007, Augsburg, Germany - in conjunction with ACM Multimedia 2007

Human-Centered Computing (HCC) lies at the crossroads of multiple disciplines and research areas that are concerned both with understanding human beings and with the design of computational methods. Researchers and designers of HCC methods and systems include engineers, scholars in psychology, cognitive science, sociology, and graphic designers, among others. Research in HCC deals with understanding humans, both as individuals and in social groups, by focusing on the ways that human beings adopt, adapt, and organize their lives around computational technologies, and on how the development of computational technologies can be informed by human aspects (culture, social setting, human abilities, etc.). **Human-Centered Computing addresses problems that the field of Human Computer Interaction (HCI) does not**

generally address. In HCC the focus is not only on interaction, but also on the design of algorithms and systems with a human focus from start to finish.

Following the success of the previous HCM workshop held in conjunction with the ACM Multimedia 2006 Conference, this year's workshop will have an entirely different format consisting of very short oral presentations and posters, so the focus will be on group discussions centered around the accepted works and the foundational issues of human-centered multimedia. Workshop attendees will be divided into discussion-focused groups and asked to define frameworks, tasks, or definitions that are relevant to the theme of the workshop. The new format is expected to allow the presentation of novel technical works as well as the exchange and generation of ideas related to human-centered computing.

WORKSHOP CHAIRS

Alejandro Jaimes, IDIAP, Switzerland (ajaimes@idiap.ch)

Nicu Sebe, University of Amsterdam, The Netherlands (nicu@science.uva.nl)

More information at:
<http://staff.science.uva.nl/~nicu/HCM2007>

A researcher and Edinburgh PhD student, Pei-yun (Sabrina) Hsueh has been awarded a **Google 2007 Anita Borg Scholarship**.

Please see the following website for more details on the "The Google Europe Anita Borg Memorial Scholarship 2007" www.google.com/anitaborg-europe