



Community of Interest Workshop

**4-5 February 2008
Martigny, CH**



Welcome to the AMI Community of Interest Workshop

It is with great pleasure that the AMI Consortium brings together experts on the subject of business meetings, meeting technologies and meeting participant behaviors from around the world to join us for this workshop. Thank you for responding to our invitation.

During these two days the AMI Consortium will help our Community of Interest members and the Friends of AMI to experience the results of our research to date and to glimpse the technologies which are emerging. We will share with you the details of the exciting new Mini-Projects program and will invest our time and resources to increase our engagement with this important community.

The AMI Consortium partners are eager to watch and hear the reactions, the questions and the recommendations of experts in response to our presentations and demonstrations.

Interact with us! Be curious. Be sincere. Be critical. Be encouraging!

When, at the conclusion of this workshop we part ways, the AMI Consortium partners will seek to integrate the feedback we receive during these short days into our organizations on behalf of the community.

Two days is too short to achieve all that we have the potential to do together. We hope that this workshop is just one of many milestones we will share with the Community of Interest in the months and years ahead. And together we will lead (and observe) changes in how people work between and during meetings.

Your COI Workshop team





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Workshop committee

This workshop is a collaborative effort building on the contributions of many people.

If you have any questions or recommendations, please contact either Christine or Francois any time.

Christine Perey

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Wifi instructions

Your computer should detect a wireless network called: COI-public

It is a secure network. The SSID is: COI-public

The network authentication is Open

No data encryption



List of participants

COI Member

Rod BACON
Christian ELSÉN
Jodi ENGELBERG
Stephan MONTERDE
David POPOVICH
Vova SOROKA

AMI Scientist

Sileyé BA
Tilman BECKER
Olivier BORNÉT
Hervé BOURLARD
Bastien CRETOL
Mike FLYNN
Benedikt HÖRNLER
Pei-Yun Sabrina HSUEH
Alex JAIMES
Mike LINCOLN
Lukas MATENA
Andrei POPESCU-BELIS
Simon TUCKER
Alessandro VINCIARELLI
Pavel ZEMCIK
Job ZWIERS

Friend of AMI

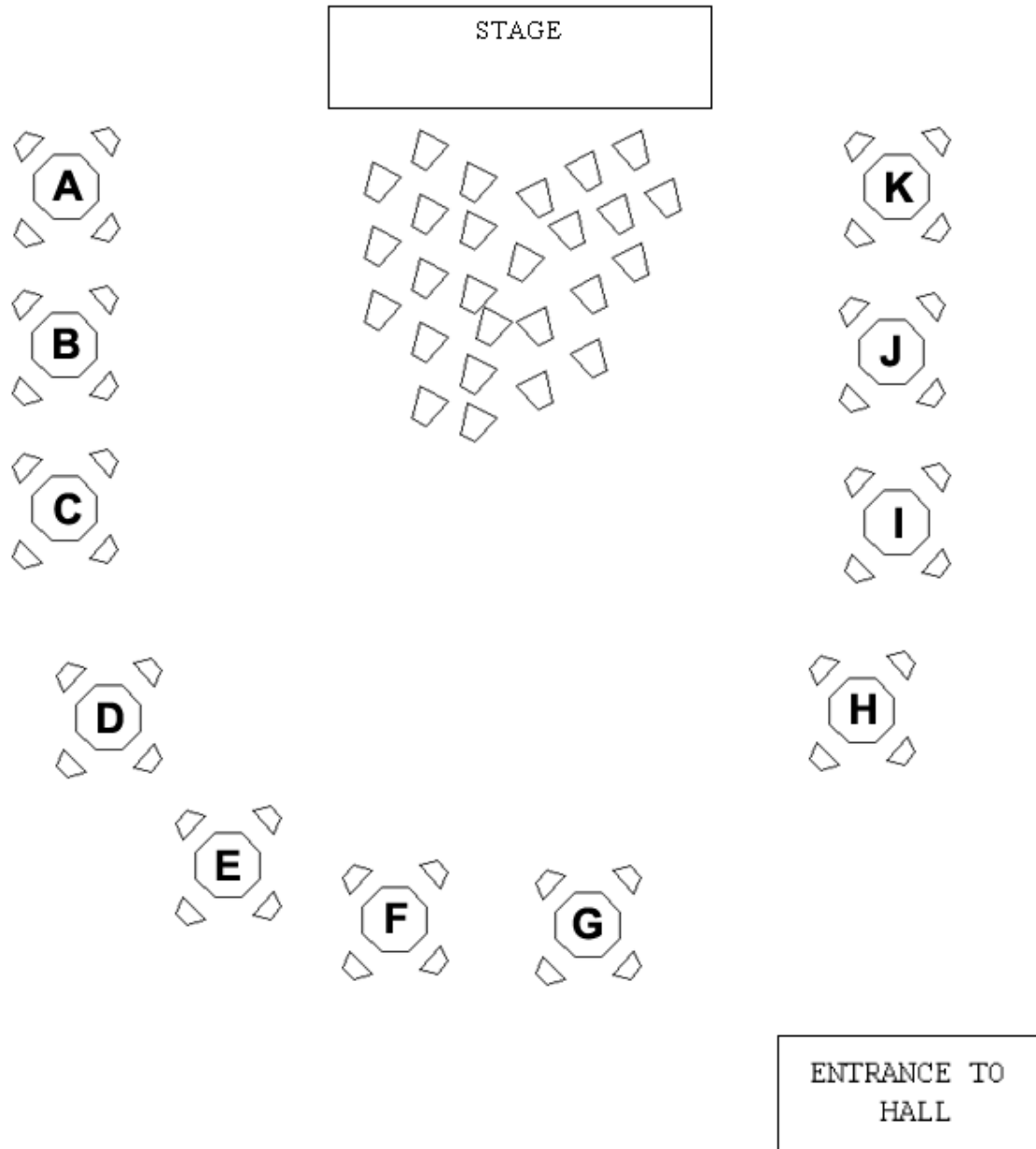
Iddo BANTE*
Frederic BONNET
Gerold FURLER
Christophe RITZLER
Stephen VON RUMP

Workshop staff

Christine PEREY
Francois FOGLIA
Frank CRITTIN*

* Technology Transfer from AMI Consortium partner organizations

SEATING AND TABLE LAYOUT





Rezonance

Rezonance is the leading network for innovation and technology in Switzerland since 1998 and organiser of First Conferences in French speaking Switzerland. The network includes over 24,000 entrepreneurs in 2008.

Nearly 30 conferences are organized each year in collaboration with the Institutes of higher learning such as FPSL, IMD and the 4 French Universities of Geneva, Lausanne, Freiburg, Neuchâtel and in Wallis, with an average audience of 200 people.

The conferences cover many topics, including:

- IT Tuesday (new technologies, Internet)
- Bio Tuesday (life sciences)
- Tuesday For Good (CSR, corporate governance, sustainable development)
- Market Tuesday (new ideas of business, access to the markets)
- Management Tuesday (organization, change, RH), in particular

Today, the Rezonance.ch network is:

- 24,400 subscribed people to the monthly newsletter
- 30% market share in executive circle
- 65% of men, 35% of women
- 70% of decision makers, 41 average age of
- 7,000 companies, including 70% of SME's, 6% of start-ups
- 28,000 unique visitors each month
- 130,000 viewed pages each month
- 8.24 minutes per visit

Contact

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rezonance
Connaître. Comprendre. Connecter.



Monday night dinner venue

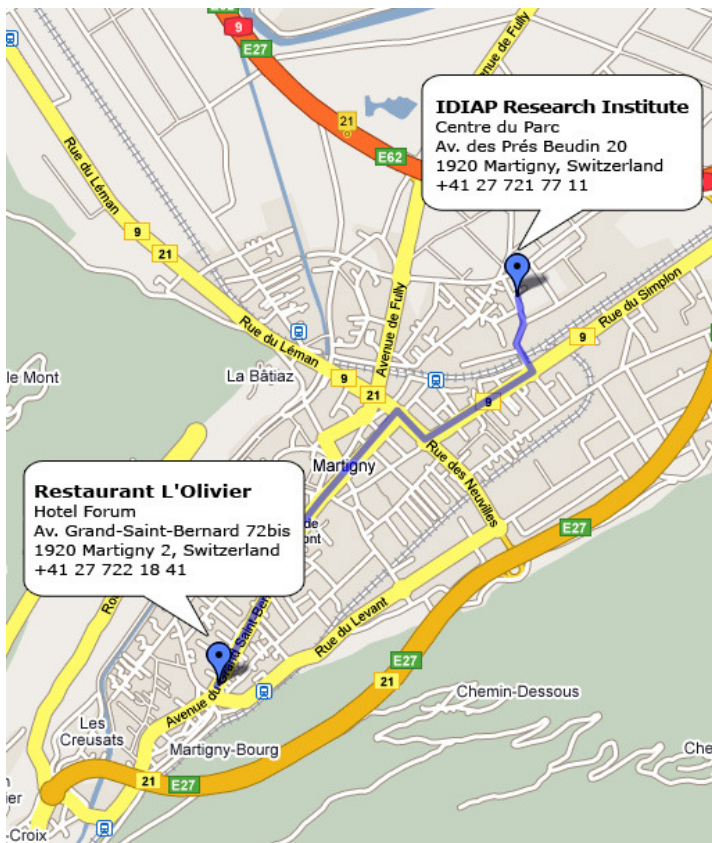
Februray 4, 2008 at 19:50 there will be a bus leaving from the Centre du Parc parking lot. The bus service will return to the Centre du Parc after the dinner.

All COI Workshop participants are invited to join us for dinner at l'Olivier in Martigny.

The address of the restaurant is

Restaurant l'Olivier
Av. du Grand-Saint-Bernard 72bis
1920 Martigny

If you prefer to walk, please let us know.





Workshop feedback form

Thank you for participating in the AMI COI Workshop. Your comments are extremely important to help us improve our contact with you.

1. On a scale of 1 to 10, how valuable was this workshop for you?

2. What did you like MOST?

.....

3. What did you specifically NOT like?

.....

4. Please rate the workshop elements (circle our choice)

	Negative	Positive									
Pre-workshop experience (web site, registration, payment)	1	2	3	4	5	6	7	8	9	10	
Printed materials	1	2	3	4	5	6	7	8	9	10	
Presentations	1	2	3	4	5	6	7	8	9	10	
Social/networking opportunities	1	2	3	4	5	6	7	8	9	10	
Meals	1	2	3	4	5	6	7	8	9	10	
Host facility	1	2	3	4	5	6	7	8	9	10	
Other	1	2	3	4	5	6	7	8	9	10	

5. Please rate the general breakout/demonstration format (circle our choice)

1 2 3 4 5 6 7 8 9 10

Provide your recommendations for improvements to specific demonstrations

.....



6. Please share any additional comments or suggestions for improvement of AMI technology transfer or this workshop:

.....

.....

.....

.....

.....

7. For COI members: how would you like for AMI technology transfer to keep you up to date on AMI Consortium developments, events and programs

	undesirable					most desired				
Individualized briefings with AMI	1	2	3	4	5	6	7	8	9	10
If desired, at what frequency?	Monthly			Quarterly			Annual			
Webcasts (presentations) by AMI Scientists	1	2	3	4	5	6	7	8	9	10
Web site with special information for COI	1	2	3	4	5	6	7	8	9	10
Newsletter (quarterly)	1	2	3	4	5	6	7	8	9	10
Format of Newsletter	Printed and Mailed					Electronic (web, PDF)				
Other:	1	2	3	4	5	6	7	8	9	10

8. For AMI Scientists: how would you like to receive periodic updates about the COI members (new products, events/local resources)

Individualized briefings with COI members	1	2	3	4	5	6	7	8	9	10
If desired, at what frequency?	Monthly			Quarterly			Annual			
Webcasts (presentations) by COI members	1	2	3	4	5	6	7	8	9	10
AMI Wiki page	1	2	3	4	5	6	7	8	9	10
e-mail from AMI Technology Transfer	1	2	3	4	5	6	7	8	9	10

Name (optional):



Rules of Engagement

The AMI COI Workshop is a special event designed for AMI scientists to show and speak about what they have been researching and are currently working on, to hear how the COI would envision using this research in the future, and to receive the feedback of experts in the commercial fields nearest to the work of the AMI Consortium.

The Community of Interest representatives, the “friends of AMI” (other participants who are not at present members of the COI but are participating in the workshop) and the AMI scientists will have opportunities to establish meaningful relationships.

The best relationships are built on open dialog conducted in an environment of trust.

This document sets out the rules of engagement which are necessary for all to honor during the workshop in order for trust-based dialog to be fostered and relationships to develop.

1. No non-AMI soliciting permitted. During the workshop plenary and breakout sessions, there will be no demonstrations, marketing or sales pitches of third party (non-AMI) products or services. Informal networking sessions are ideal for these conversations.
2. Confidentiality of AMI information. The AMI Consortium’s research and activities are funded by the European Commission, a public source of support. Under these circumstances, all research is performed in an open and public spirit, which cannot be covered by confidentiality disclosures. This said, any AMI Consortium partner may also be conducting research or development activities which are the property of the partner and could be considered sensitive.
3. Confidentiality of non-AMI participant remarks and information. Non-AMI workshop participants (COI members, friends of AMI participants) are encouraged to disclose to AMI participants all frank opinions about/objections to the commercial applications for and feedback on AMI technology demonstrations. The comments or pre-release product information shared by the COI member (or the “friends of AMI”) participant with the AMI Consortium scientist and AMI Technology Transfer will be treated as confidential and sensitive, and will be used by the AMI Consortium for internal and non-commercial purposes, unless permission to do otherwise is requested and granted in writing.
4. Post-event information. The AMI Consortium may publicize overall, general results of the COI Workshop, through press release and post-workshop briefings of selected industry analysts and press. This will include general workshop information, names of the companies who sent delegates (not the names of individual delegates). Likewise, the COI participants may publicize their participation in the AMI COI Workshop





Plenary Presentation



Welcome to AMI Community of Interest Workshop

February 4 and 5, 2008



Introductions

- Project co-directors
 - Dr. Steve Renals
Centre for Speech Technology Research
University of Edinburgh
 - Dr. Hervé Bourlard
IDIAP Research Institute and EPFL
- AMI Scientists
- COI members
- Friends of AMI

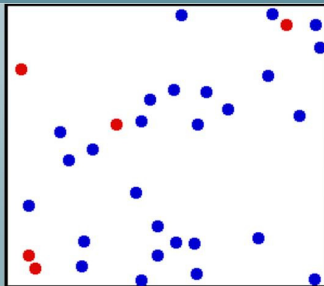
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Find your place

- Think like a gas molecule
- And mix!



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Agenda

- AMI Consortium
- What AMI does and How we do it
- AMI Building Blocks
- AMI Technology Transfer
 - Community of Interest
- The COI Workshop
 - Our time together
 - Your binders

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AMI Consortium

- an 11-member multi-disciplinary consortium dedicated to the development of technologies that will enhance multiparty interactions



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Areas of focus

- Real-time team meeting dynamics
- Automatic meeting content indexing and viewing
- Data collaboration and/or consensus building
- Content management (publishing, indexing and repurposing of pre-recorded meetings)
- Knowledge management (mining/extracting information about and from meetings)
- Consulting about improvements in meetings

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AMI funding

- The European Commission
 - Framework Programme 6
- Corporate sponsorships and contributions
- Total approx 15M Euros for each project

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AMI Consortium Projects

- Augmented Multiparty Interaction (AMI)
 - Jan 2004–Dec 2006
 - Achieved all objectives
 - MMM Database
- AMIDA= AMI+Distance Access
 - Jan 2007–June 2009

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AMI and AMIDA

Area of focus	AMI Project	AMIDA Project
Real-time meetings	Human-human, face-to-face	Same but in remote meetings
Automatic meeting capture	Automatic indexing/tags	Same with remote meetings
Data collaboration	Low emphasis	Higher
Content mgt	High emphasis	Equal
Knowledge mgt	Low emphasis	Higher
Consulting	High emphasis	Equal

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What AMI does and How we do it



Capture for Research

- Instrumented Meeting Rooms
- Multiple synchronized media
 - Close-up and room view cameras
 - Close-talking and far-field audio
 - Whiteboard, PowerPoint and I/O digital pen interaction



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Annotate

- NITE XML Toolkit



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Processing technology

Visual Tracking



Face orientation

Visual Tracking



Look who is talking

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Content, events and patterns

- Who is in the meeting?
- What do the participants say?
- When and how do they communicate?
- What are they doing?
- What are they looking at?

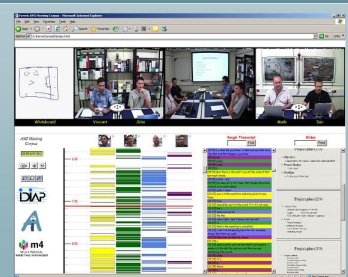
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Browsing meetings

- Navigate
- Search
- Skip



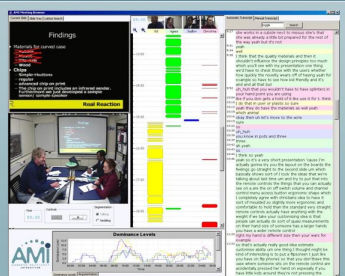
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Browsing meetings

- Show
 - Slides
 - Media
 - Transcript
 - Analytics



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Recognize non-verbal

- Emotions
- Gestures
- Actions



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Syntheses & Analyses

- What topics are discussed and when?
- What decisions are made and by whom?
- What activities are completed?
- What tasks are assigned or reported done?
- What happened (summaries)?

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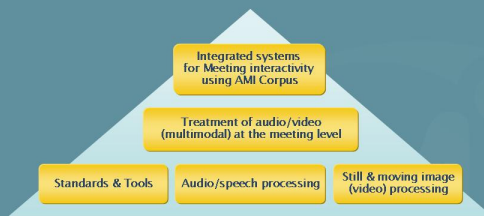
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AMI Building Blocks



AMI Building Blocks



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Core technologies (1)

- Automatic Speech Recognition (LCVSR)
- Keyword Spotting
- Localization and Tracking
 - Speaker Tracking
- Speaker Segmentation
- Gesture and Action Recognition

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Core technologies (2)

- Hot spot detection
- Focus of Attention
- Dialogue Act Recognition
- Topic Segmentation
- Summarization
- Participant Influence Levels
- Meeting Browsers

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AMI Technology Transfer



Project TT objectives

- To encourage and to enable the development of tools for business meetings
- To initiate or contribute to the development of international or industry standards for how meeting archives are indexed and used

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Business value

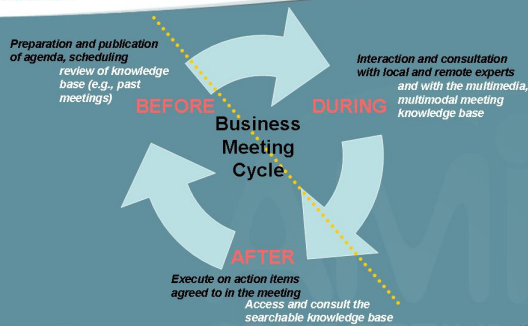
- To drive changes in the way people work during and between meetings
 - To make information related/relevant to meeting topics and participants more accessible
- To contribute to the transformation of meeting content into knowledge

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AMI Vision for Meetings



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In use by customers



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AMI Community of Interest



What is the COI?

- group of people with
 - shared need to solve common problems, develop skills and share best practices
- contains multiple areas of focus
 - “communities of practice”
- In the case of AMIDA, the COI is
 - people representing their corporate employers or clients
 - at the interface between basic and applied research, and development
 - seek new ways of using technology in meetings
 - seek to overcome the technical and societal obstacles of multimodal communication at a distance

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Community of Interest



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Strategies

- Collaboration, adaptation
- Commercial licensing
 - Existing company
 - Formation/transfer to a start up
- Open Source license
- Consulting services (“know how”)
- Development of standards

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The COI Workshop

at Centre du Parc in Martigny



Workshop objectives

- 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

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February 4

	09:30	Overview
	10:30	Coffee break
	11:00	3 breakout sessions
	12:30	Buffet luncheon
	13:30	3 breakout sessions
	15:00	Coffee break
	15:15	3 breakout sessions
	17:45	Closing remarks
	18:00	Cocktail reception
	20:00	Dinner

50/50

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February 5

	09:00	Mini-projects presentation
	09:30	3 breakout sessions
	11:00	Coffee break
	11:30	AMI and COI (separately)
	12:30	Luncheon
	13:30	Plenary discussions Q&A
	14:30	Close of workshop

70/30

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Breakout sessions

25 min. 3–4 people per table

- :00 greetings
- :05 demonstration of AMI technology
- :10 discussion of applications, issues, concerns
 - Have you seen this or similar technology before?
 - Have you thought of other approaches to this challenge?
 - Do you have applications for this technology today?
 - What value do you think this would bring to your end users?
- :20 private time to complete papers (write notes of issues raised, possible next steps, ratings) in individual binders
- :25 end

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Breakout session outputs

- Sharing/exchange in real time
- In the place of full recording...
 - handwritten notes in your binders
 - score the likelihood of collaboration
 - What you find most valuable
 - Major concerns

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Rules of engagement

- We will take good care of you
 - Provide information, binders, signs, seating plan, schedule of meetings
 - Entertain and feed you!
- Be creative, innovative, dare to ask
- Be good listeners → capture feedback
- COI members refrain from sales pitches during the breakouts



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Rules of engagement (2)

- AMI Consortium demos and information provided are public
 - AMI partners may also have sensitive information
- COI member remarks *not* under strict non-disclosure
 - unless signature with individual AMI partner
- AMI and COI may publicize high level results

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Your Binders

Personal guide to your workshop



Questions?





Demonstrations

During the breakout sessions, many small groups will be meeting. The initial focus of your 30 minute meeting is the demonstration prepared by AMI Scientists.

On your individual schedule, COI members and friends of AMI will find the letters assigned by breakout period. The letters correspond to the following table assignments.

You will use the table layout (page 8) to find the meeting location.

A	JFerret Meeting Browsers
B	Automatic Video Editing
C	Automatic Content Linking
D	Smart Access to Presentation Content
E	Extractive Summarization
F	Temporal Compression of Meeting Audio
G	Visual Focus of Attention Recognizer
H	Virtual Presence Support
I	Comic-style multi-modal Summarization
J	Mobile Meeting Assistant
K	Meeting Metadata Standardization

The AMI Scientists have prepared descriptions of their demonstrations including some background and suggested application scenarios. The signs at each table are reproduced in this binder for participant use during the meetings.

Following the demonstration, please discuss any aspect of the technology or potential application scenarios.



JFerret Meeting Browsers

What is JFerret?

Constructing applications to effectively and intuitively browse the contents of a meeting is very important. JFerret is an extremely flexible meeting browser development framework, which presents the multi-media meeting recordings of the AMI project. It can be configured to display many types of data and recognition results, including speaker segmentations, speech transcripts, slides, meeting actions and other annotations, created either manually or automatically. It is used in various guises in the AMI project.

Key Functionalities

- Integrates various AMI technologies
- Intuitive graphical user interface
- Very flexible, simple plug-in integration
- Easily integrated within any Java application

Application Scenarios

Scenario 1: Browsing

A single browsing interface built using JFerret can include any or all of the following components: graphic representation of speaker segmentation (color bars that show who spoke when), textual meeting transcript (from automatic speech recognition or input manually), dominance levels and argumentation graph (extracted automatically), images of slides, multiple video and audio. All components appear synchronized and the text is color coded. The user can click on the timeline, a particular slide, or the transcripts to view the corresponding segments.

Scenario 2: Searching

Text transcripts of the meeting can be searched using keywords. The results are presented with associated metadata using the JFerret architecture.

Integration

The JFerret framework can be used to easily integrate any of the above components into any application that uses Java. For example, the player and timeline could be added to another application.

Contact

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Automatic Video Editing

Multiple Video Sources

Current technology permits recording of live events using several cameras. This produces data for automatic detection, recognition, indexing etc. However, how can be such amount of data presented to the human viewer?

Only the most important shots are selected instead of unnecessary presentation of all the available data. Shot composition satisfies many user requirements and elementary movie maker's standards.

Automatic Video Editing

AMI technology allows editing of the events recorded simultaneously with several cameras. Cameras with different type of view can be utilized (distant view, close view). Virtual camera tool is available so e.g. persons can be tracked on camera with distant view and satisfactory resolution.

Various types of the events can be processed; editing algorithm can be adjusted according to the available event inputs. Important events are preferred in the output videos – shots are selected according to their measure of "importance".

Aesthetical aspects are taken into account during shot composition – some elementary rules from movie makers are included.

Various effects can be included in resulting video – zooming cameras, picture in picture, fade in/out etc. Both real-time and offline applications are possible.

Application Scenarios

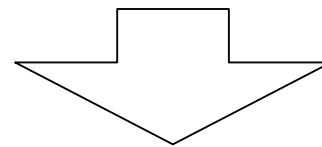
Meeting video summary: automatic generation of video summary of meetings, which are recorded with several cameras.

Multi-camera Videoconference system: If more than one camera is used at a location, stream from the location is pre-edited.

Automatic lecture video: Output video will be composed from such shots according to lecturer activity, projected slides etc.

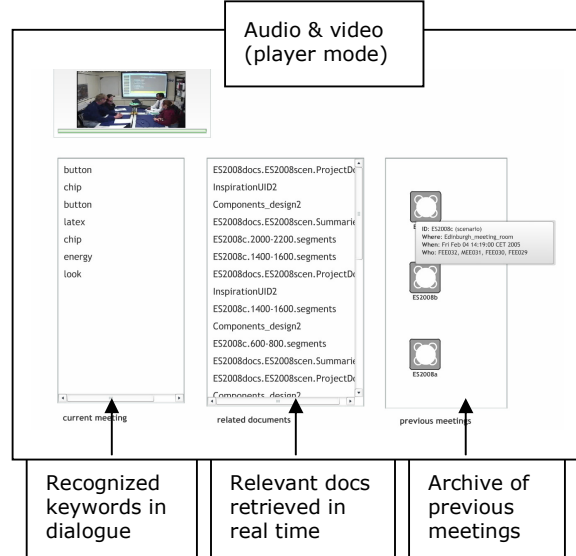
Contact

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Automatic Content Linking

Participants in a meeting often mention documents containing facts that are currently discussed, but only a few of them are at hand. Searches could be performed in an document management system for the right piece of information, but the participants in a meeting usually do not have the time to perform such operations frequently during a meeting.



Objective

The Automatic Content Linking device is designed to perform searches at regular intervals, in a database of documents that can be prepared before a meeting, including for instance reports, emails that were exchanged, minutes and presentations from past meetings, etc. Pseudo-documents such as fragments of previous meetings that are related to the current one are also included in the repository.

The search criterion is constructed based on the terms that were recognized automatically from the meeting discussion (some pre-specified terms can receive greater weight) and the results are presented as a list of document names ordered by relevance. The list can be empty if no document matches enough the words that were recognized, and a persistence mechanism helps documents that are often retrieved to remain some time at the top of the list. A user interface offers the participants quick access to the content of the documents that are retrieved, if they believe that they contain valuable information to a given topic in the meeting.

Application Scenarios

“Just-in-time” retrieval: participants to a meeting are constantly receiving suggestions about documents (including excerpts of previous meetings) that are potentially relevant to the ongoing discussion. Participants are free to ignore them, or to start using them to enhance the discussion, e.g. with figures, precise facts, or decisions that were made in previous meetings.

Document/speech alignment for meeting browsers: users of a meeting archive can view the recordings of previous meetings augmented with related documents, regardless of whether the participants to the meeting referred to them explicitly or not. This is crucial for meetings whose main purpose is to discuss a long document, e.g. a report.

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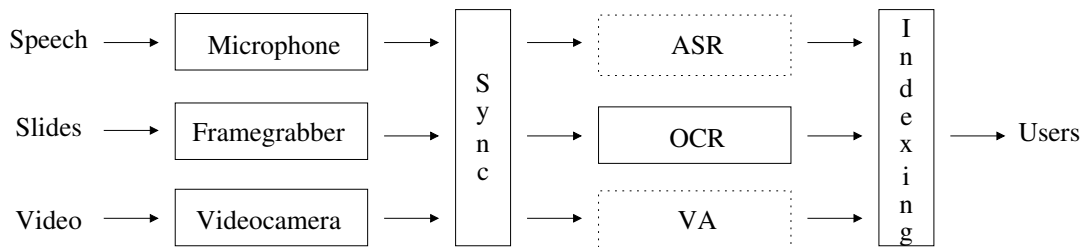


Smart Access to Presentation Content

The Presentation Acquisition System (PAS) performs capture and indexing of oral presentations based on slides. The system is fully transparent and the speakers do not need to change their behaviors in order to make the system work. Moreover, the PAS can be activated and de-activated using a single button and this makes it suitable for use in any real world environment.

The system acquires three channels: audio, video and PC-projector output (i.e. whatever is projected onto the screen). The three channels are synchronized and, at any instant, it is possible to know what is being said, what is projected onto the screen and how the speaker appears (see Figure for the architecture).

The sequence of the slides is extracted from the PC-projector: each slide image is transcribed with an OCR and the resulting text is indexed. The slide transcriptions can be searched like any other text and, by retrieving a slide, it is possible to retrieve audio and video segments corresponding to the moment when the slide was projected.



The acquired presentations are delivered through a Google-like system that retrieves video segments and slides relevant to the submitted query. An online demonstration is available at: <http://www.idiap.ch/mmm/talk-webcast/uist-06>.

Contact

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Extractive Summarization

Hand-written minutes are often unavailable or inaccurate/unreliable. But AMI technology can automatically generate meeting summaries.

What's important in a meeting?

Which topics were discussed?

Which speakers were active? What was decided?

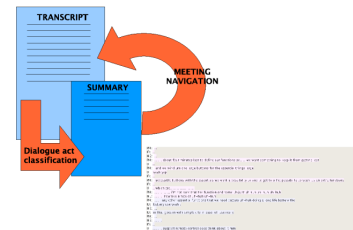


How we automatically create a summary

Using automatically generated text transcript, algorithms extract the most important meeting sentences, using:

- prosodic information, i.e. *how* the participants speak
- linguistic information, e.g. presence of *keywords*
- structural information, e.g. *location* in the meeting

Concatenate these sentences to form a single document.



Application Scenarios

Scenario 1: Between Meetings

You are between meetings and would like to revisit the discussion of a previous meeting before attending the next one. Using our meeting browser, you can navigate the content of prior discussions and get up-to-speed. Software can automatically provide a condensed version of the meeting and permit non-linear browsing/topic segment-based navigation.

Scenario 2: Real Time Keyword Spotting

You are not present in the meeting but are monitoring it remotely while addressing other tasks. A running summary can be generated by a meeting assistant who pings when subjects of interest enter the discussion.

Scenario 3: Meeting acceleration (catch up with meeting in progress)

Want to know what has been discussed so far, but you do not want to interrupt the current discussion? A summary of a meeting allows the late participant to acquire context for a discussion and join the conversation without inconveniencing those already in the meeting.

Contacts

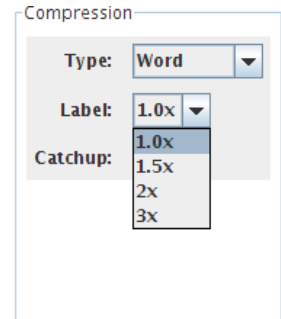
Pei-Yun Sabrina HSUEH
CSTR, University of Edinburgh
p.hsueh@ed.ac.uk



Temporal Compression of Meeting Audio

Temporal compression is a technique which allows you to spend less time listening to speech recordings but still collect all the useful content. There are a number of different techniques to do this - two of which are present in this demo. We can remove either words or sentences that are less important, or we can speed up the recording but keep the pitch of the speakers constant.

The different techniques have different trade offs at different compression rates.



Application Scenarios

Scenario 1: Mobile Meeting Reminder

This technology is fast and extremely portable and so one possible application is a rapid meeting reminder that can run over a mobile phone or pda. In this scenario you are en route to a meeting but would like to have a rapid reminder of the previous meeting - using temporal compression you can highly compress the meeting and, for example, get a five minute overview of what was said in the previous meeting.

Scenario 2: Meeting Catch Up

You are en route to a meeting (or you have arrived) but are running late. Using temporal compression you can rapidly skim the beginning of the meeting and join the meeting with some knowledge about the subjects and content of the discussion you have missed. This can be tuned to your requirements (e.g. catchup 10 minutes of missed meeting in 5 minutes or catchup 10 minutes of missed meeting in 1 minute).

Scenario 3: Rapid Meeting Playback

The temporal compression system can be used as a general playback mechanism to allow you to process meeting recordings much faster. Meetings contain a great deal of irrelevant content (lengthy pauses, um's and err's etc.) - with temporal compression you can automatically skip these portions of the meeting and extract relevant and useful information much faster.

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Visual Focus of Attention (VFOA) Recognizer

Today, when people meet face-to-face, they provide one another visual clues regarding their attention. For example, if a person is looking at their screen, their attention is probably on the contents of the screen, not the person or people speaking. When people are meeting remotely, it is difficult to know what they are focusing on, however, it is equally important, if not more important.

For many future meeting applications, the focus of a person's attention is an important element.

What can technology do?

The AMI Consortium has developed systems that automatically estimate the Visual Focus of Attention (VFOA) of people based on the orientation of their head. The **VFOA** of a person at a given time instant, defined from his eye gaze, **indicates who or what a person is looking at**.

What is it?

VFOA is defined as a set of discrete visual targets of interest. For example, in the meeting context, these are: the other participants, the slide screen, the white-board and the table.

Application Scenarios

Meeting Assistants: digital assistants that analyze the social dynamics of non-verbal communication in a group and provide feedback on the group dynamics. This can be for the remote participant to better understand what is happening in the environment where other meeting participants are co-located, thus increasing participant's satisfaction level. An assistant could also judge how "safe" it is to interrupt a person based on what they are focusing on.

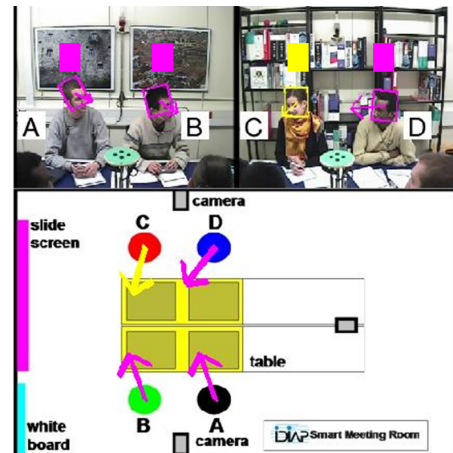
Participant Influence Level estimation: In some meetings, it is important to know who has the greatest influence over a decision.

Market Research: the recognizer can be used to assess whether people in a given environment are attracted to visual stimuli. A tool can automatically measure the effectiveness of outdoor advertisements, similarly to the Nielsen ratings that measure media effectiveness.

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Supporting Virtual Presence

Why is virtual presence important?

In meetings with one or more remote participants the remote persons are in a less favorable situation than the people who meet face-to-face. The remote participants have difficulties with:

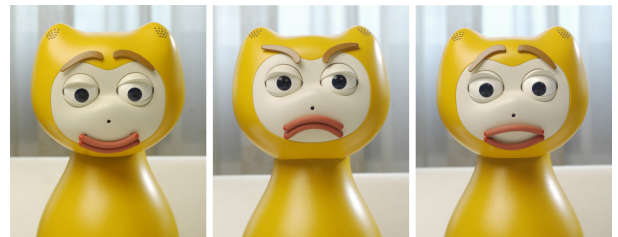
- Taking the floor
- Using and interpreting non-verbal signals
- Determining the focus of attention

This may make the remote participants less influential and will disturb the flow of interaction. Virtual presence can reduce these obstacles and improve the interaction flow.



How to support virtual presence

There are several ways to support remote participation. A participant can be present as a virtual head on a screen. Or be represented by a physical robot, such as the iCat. Such devices need to be equipped with intelligent listening behavior, floor taking behavior, all of which support remote presence.



Application Scenario

A person, traveling around, needs to join a meeting, and has an internet connected mobile phone. This phone is running a special meeting application. Our traveler is represented in the common meeting room by means of a "talking head" or avatar. Apart from the normal speech channel, the following options are available for the remote participant:

- "Request the floor". This has the effect that the talking head show non-verbal behavior appropriate for requesting attention.
- "Emotion display". This will cause the taking head to show surprise, joy, agreement or disagreement etcetera.

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Comic-Style Multi-modal Summarization

Summarizing a meeting

- In AMI and AMIDA, we are working on multi-modal summaries of the content of meetings.
- A summary can contain text, images and even video excerpts from the meeting. Texts can include abstracts as well as collections of action items or decisions.
- Extractive as well as abstractive techniques are used with varying degrees of domain independence.

Presenting a summary

A summary of a meeting must be presented in a well understood medium with well known presentation metaphors. We have developed the SuVi presentation system in two variants:



- **The Comic Strip:** It presents the content of a meeting in a *time-line oriented* style. Topics are shown in the order they appeared in the meeting with important images, e.g., showing the main contributors and an excerpt of their contributions.
- **The Newspaper:** It shows the content of a meeting in a *content-oriented* style. Topics are collected like news articles and a layout engine assigns a place on the page that correlates to the importance of the topic.

We are using a common layout engine that combines constraint-solving and optimization techniques for an optimal presentation.

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Mobile Meeting Assistant

This demonstration is of a "meeting assistant" which gives the user additional (otherwise missing) information about a meeting in progress.

Objective

Sometimes people need to attend meetings remotely, but can't get to a desktop computer or special videoconferencing facility. They often end up attending by mobile phone, but then it's difficult to know which of the people in the meeting room is speaking. In addition, it's useful to be able to see slides and to know who or what has the attention of the meeting participants, particularly when the room has gone very quiet or very noisy.

The display indicates the participants in the meeting room as if viewed from above using icons around a table, with the current slide superimposed on the table's surface. An arc on each icon indicates their head orientations; the arc is grey for someone who is silent and turns red when they are speaking.

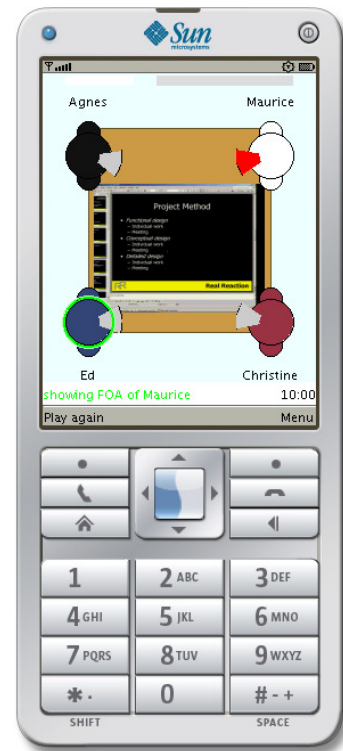
The display also shows when one of the four participants is looking at someone else by marking the person she is looking at with a green ring. The focus of attention (indicated by green circles) is obtained from manual annotations, while the head orientation (cones) was extracted fully automatically from the video and audio record of the meeting (therefore there are some inaccuracies). This demonstration relies on information that has been extracted in advance and stored in a database designed specifically for handling meeting archives, The "Hub". That is, it should be considered an early prototype of a system that could be made available soon.

Application Scenario

This demonstration shows a new kind of interface for attending a remote meeting using a mobile phone. The interface helps the user to participate in the meeting better than they could using speech alone, by giving them information about who is speaking, where people are looking, and what slides are being used.

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Meeting Metadata Standardization

The word 'annotation' is used in many ways, along with the word 'metadata'. They both refer to supplementary information added to an initial collection of data (e.g. multimodal meeting recordings) in order to enrich its informational content. This information might represent supplementary knowledge about the data (e.g. entered by users upon recording of the data) or a more abstract or "semantic" representation of the information contained in the data (e.g. computed from the data).

Annotations are crucial for research and development based on machine learning algorithms, as reference annotated data is useful to train recognizers and to evaluate them. Unsupervised learning methods can use non-annotated data.

The AMI Consortium designs tools that assign metadata and annotations automatically to the multimedia recordings that they process, although some metadata elements (such as name and description of participants) could be added manually by a meeting administrator, in relation to a company's own information systems.

Why are standards needed?

Standards are necessary because as soon as annotated meeting archives become available, users will seek to use them on heterogeneous platforms and for different applications (meeting assistants, storage systems or meeting browsers).

Standards are crucial to ensure interoperability between resources used for training and test, and between commercial systems. "Plug-and-play" resources can be developed and shared by the community, thus reducing the annotation effort, and establishing common grounds for benchmarking.

What is the problem?

There are many standards proposed. None are perfectly matched to the needs of this community and the meeting archives of the future.

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Overview of AMI Partners

The AMI Consortium is comprised of research institutes, universities and an industrial partner (Philips). The consortium partners collaborate on research projects and integrate their results into demonstrations and deliverables.

Partners contribute to work packages in their special areas of expertise as noted in the following pages.



IDIAP Research Institute, CH

AMIDA Coordinator

Prof. Hervé Bourlard

Overview

The IDIAP Research Institute (www.idiap.ch) is an independent, not-for-profit, research institute located in Martigny, Valais, Switzerland. IDIAP has a strong academic link with the Ecole Polytechnique Fédérale de Lausanne (EPFL-www.epfl.ch). While partly subsidized by the Swiss Federal Government, the State of Valais, and the City of Martigny, IDIAP obtains most of its funding from numerous national and international (EU and US) research projects, as well as from collaboration with industries. At the national level, IDIAP is the Leading House of the National Center of Competence in Research (NCCR) on "Interactive Multimodal Information Management (IM2)", (www.im2.ch).

With a research staff of more than 80 scientists (including EPFL professors, seniors, postdoctoral researchers, PhD students and developers), the primary missions of IDIAP are research, education, and technology transfer.

Areas of expertise

Speech processing, computer vision, machine learning, multimodal interaction, smart meeting room, handwriting recognition, multimodal indexing.

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German Research Centre for Artificial Intelligence (DFKI), DE

Prof. Wolfgang Wahlster and Dr. Tilman Becker

Overview

Founded in 1988, DFKI today is one of the largest nonprofit contract research institutes in the field of innovative software technology based on Artificial Intelligence (AI) methods. DFKI is focusing on the complete cycle of innovation - from world-class basic research and technology development through leading-edge demonstrators and prototypes to product functions and commercialization.

The research and technology development in the areas of Image Understanding and Pattern Recognition, Knowledge Management, Deduction and Multiagent Systems, Language Technology, Intelligent User Interfaces and Robotics are carried out in the DFKI research labs.

Areas of expertise

Intelligent visualisation and simulation systems, language technology, intelligent user interfaces, summarization.

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Research Institute

International Computer Science Institute (ICSI), USA

Prof. Nelson Morgan and Dr. Barbara Peskin

Overview

Since its inauguration in 1988, ICSI had maintained an affiliation with the [University of California](#) at Berkeley. Several of ICSI's scientists hold joint faculty appointments at UCB, teaching graduate and undergraduate courses and supervising students who pursue their doctoral thesis research at ICSI.

ICSI's offices are located in downtown Berkeley, adjacent to the UCB campus and in close proximity to San Francisco and the Silicon Valley. There are approximately 80 scientists in residence at ICSI including principal investigators, postdoctoral fellows, visiting researchers and students. Administrative staff provide computational and research support services, as well as housing location and visa assistance for international visitors.

Areas of expertise

Language and dialogue modelling, spoken language processing, speaker modelling, instrumented meeting room design.

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Research Institute

Netherlands Organisation for Applied Scientific Research (TNO), NL

Dr. Wessel Kraaij (Delft), Dr. Wilfried Post (Soesterberg)

Overview

TNO was established by law in 1932 to support companies and governments with innovative, practicable knowledge. As a statutory organization TNO has an independent position that allows to give objective, scientifically founded judgements.

Today, TNO is a knowledge organization for companies, government bodies and public organizations. The daily work of approximately 5,400 employees is to develop and apply knowledge. The organization also provides contract research and specialist consultancy as well as grants licenses for patents and specialist software. TNO tests and certifies products and services, and issues an independent evaluation of quality. Moreover, TNO sets up new companies to market innovations.

Areas of expertise

Multimodal information retrieval, natural language processing, computer vision, human factors, HCI, audio analysis, user-centered design, usability testing, group decision making, computer supported collaborative work.

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e-Health Research Centre, Australia

Dr Iain McCowan

Overview

Established in 2003, the e-Health Research Centre is a leading national research facility in ICT for healthcare innovations. A joint venture between CSIRO and the Queensland Government, the e-Health Research Centre's Research Program aims to improve the quality and safety of healthcare for individuals and communities through an ICT research program focused on applied outcomes and active adoption by the health system.

The largest single-funded e-health research and development facility in the Southern Hemisphere, the Centre comprises a multi-disciplinary team of over 40, including world-renowned researchers, software engineers and PhD students, dedicated to excellence in research and health services.

Areas of expertise

Content analysis of medical multimedia, technological support for clinical teams, sensor signal processing for patient monitoring.

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Academic Partners

University of Edinburgh (UEDIN), UK

AMIDA Coordinator

Institute for Communicating and Collaborative Systems

Prof. Johanna Moore, Prof. Steve Renals and Dr. Jean Carletta

Overview

The University of Edinburgh is the top ranked Scottish university. The Institute for Communicating and Collaborative Systems (ICCS) is dedicated to the pursuit of basic and applied research in a wide range of areas of Cognitive Science, Artificial Intelligence, and Computer Science concerning dynamic aspects of cognition, including: wide-coverage parsing and statistical natural language processing, question answering, information extraction, statistical machine translation, computational syntax and semantics and their interaction in processing; human learning, human reasoning and psychologically realistic knowledge representation; the production and analysis of cooperative communication in a number of modalities including spoken and written text and dialogue, graphics and multimedia, and music.

ICCS is part of the School of Informatics at the University of Edinburgh. Through the cross-college Human Communication Research Centre (HCRC), the Institute interacts with other units in Edinburgh, notably the School of Philosophy, Psychology, and Language Sciences.

Areas of expertise

Dialogue understanding, cognitive engineering, multimodal annotation.

Contacts

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Academic Partners

Sheffield University (USFD), UK

AMIDA Training Coordinator

Computer Science Department, Speech and Hearing Research Group

Prof. Phil Green

Department of Information Studies

Prof. Steve Whittaker

Overview

The University of Sheffield is a world-renowned academic institution located in the UK.

Two groups from the University of Sheffield are involved in AMIDA:

- The Speech and Hearing Group in the Computer Science Department. This group consists of seven faculty, six postdoctoral scientists and twelve PhD students, and has longstanding research interests in all aspects of speech processing, computational hearing, multimodal recognition and information access from speech and audio.
- The Human-Computer Interaction Group in the Information Studies Department led by Prof S. Whittaker focusing on multimodal human computer interaction and remote collaboration and communication.

Areas of expertise

Intelligent visualisation and simulation systems, language technology, intelligent user interfaces, summarization.

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Academic Partners

Brno University of Technology (BUT), Czech Republic

Institute of Computer Graphics and Multimedia

Prof. Pavel Zemcik

Overview

The Czech Technical University was founded in 1899. Over the than a hundred years of its existence the number of study areas have increased and at present the Brno University of Technology, as the only technical university in the Czech Republic, covers the whole spectrum of technical disciplines. With more than 15,000 students, the Brno University of Technology is one of the largest universities in the Czech Republic.

The University has made numerous contacts with universities and other institutions around Europe, United States, Poland, Russia, etc. The Brno University of Technology has supported internationalization of studies through ECTS, participated in EU projects such as AMI, AMIDA, Tempus, Leonardo, Socrates/Erasmus, CEEPUS, Aktion, DAAD partnership.

The Faculty of Information Technology (FIT) is the AMIDA partner. The scientific and research activities at the FIT are directed towards up-to-date research areas concerning the theory, methods and application of information technologies.

Areas of expertise

Speech coding, speech recognition, speaker recognition, machine vision.

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Academic Partners

Technische Universität München (TUM), DE

Institute of Human-Machine Communication

Prof. Gerhard Rigoll

Overview

TUM features a strong profile in the fields of Science and Engineering. Alongside the traditional key areas addressed by Technical Universities, powerful links have been also established with the Life Sciences, ranging from Nutrition and Food Sciences, Biotechnology and Bioinformatics to Medicine.

The Institute for Human-Machine Communication at TUM consists of 4 professors and a research staff of about 30 people. Its research activities represent one of the broadest collections of research in multimodal human-computer interaction and media communication in Germany, mainly using stochastic modelling approaches, covering all possible modalities. This includes advanced algorithms and systems in the area of speech processing, handwriting recognition, acoustics, gesture recognition, face and emotion recognition, as well as object tracking and information retrieval.

Areas of expertise

Multimodal man-machine communication, language engineering, computer vision, gesture recognition.

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University of Twente (UT), NL

Parlevink language engineering group

Computer Science Department, Speech and Hearing Research Group

Prof. Franciska de Jong and Prof. Anton Nijholt

Overview

The Human Media Interaction (HMI) group in the Computer Science Department at the University of Twente consists of ten faculty, several postdoctoral scientists, about 15 Ph.D. students and some junior researchers. The group has expertise in multimodal interaction, (speech and language supported) multimedia retrieval, dialogue modelling, embodied conversational agents, virtual reality and human factors. HMI is involved in numerous national and international research projects.

Areas of expertise

Multimodal interaction, multimedia retrieval, virtual reality, agent technology.

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Philips Consumer Electronics BV, NL

Mr. Kees Tuinenbreijer, Bram van der Wal

Overview

Philips Consumer Electronics B.V. manufactures connected displays, home entertainment networks, and mobile infotainment. Its product range includes television (TV) products, such as flat TV, conventional TV, and projection TV; video products, including home theater in a box (HTiB), DVD, DVD+RW, VCR, and TV-VCR; audio systems, separates, and portables; LCD and CRT computer monitors; mobile phones and cordless digital phones; set-top boxes; and accessories, such as headphones and recordable media. Philips Consumer Electronics B.V. has strategic alliance with Dell. The company is based in Eindhoven, Netherlands.

Areas of expertise

Interactive services and applications on the move.



Overview of AMI Community of Interest

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.

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.

The AMI Consortium works with the AMI Community of Interest to advance consortium technology transfer objectives.

A community of interest may contain subsets of people sharing information within their respective communities of practice. There are at least four communities of practice in the AMI COI: vendors, consultants, research labs, large end user organizations.

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.



Ceannard

COI representative: **Jim Hood**

Company overview

Ceannard provides a software product and professional services by which large enterprises can increase the effectiveness of knowledge access.

It is a small enterprise, based near Glasgow, Scotland

Products

Ceannard developed and current licenses software and systems that help companies "capitalize on knowledge" by capturing meetings and presentations, automatically indexing and archiving them for knowledge mining.

All media (video, audio, slides and transcript) are synchronized in the playback window.

Consulting services

Ceannard consultants focus on the effectiveness of knowledge access as well as knowledge capture (in meetings and seminars), in order to boost individual, team and business performance.

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Cisco

COI representatives: **Keith Lantz and Christian Renaud**

Company overview

Cisco is a large enterprise with over 47,000 employees worldwide. It has offices in Europe, with research and development in Rolle, Switzerland.

It is the world's largest provider of IP infrastructure. Cisco funds organic development of new products and services - over \$4.07 Billion spent on R&D in Fiscal Year 2006. It is also an active acquirer of/investor in innovative start-ups. Cisco has acquired 114 companies since 1993. In the area of meetings, the company has purchased two leading companies in web conferencing:

- Latitude Nov 2003 \$80M
- WebEx March 2007 \$3.2B

Products in the domain of Collaboration and conferencing

In the domain of collaboration and conferencing, Cisco also conducts significant research and development internally, and has OEM relationships with suppliers of technology as well. Cisco is the largest OEM customer/partner of RADVISION from which it obtains video gateways and MCUs and resells as part of its enterprise solutions business. The company also resells TANDBERG videoconferencing end points.

In addition, Cisco internally develops IP video and telepresence solutions. The company introduced its TelePresence family of solutions in Oct 2006.

Services

WebEx is the largest provider of virtual meeting services (see WebEx profile below). The company also provides teleconference bridge and MeetingPlace Express hosting services.

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CapGemini

COI representative: **Reinoud Karssenber**g

Company overview

CapGemini is a major French company, one of the world's largest information technology, management consulting, outsourcing and professional services companies with a staff of over 80,000 operating in 30+ countries. It is headquartered in Paris (Rue de Tilsitt) and was founded in 1967 by Serge Kampf, the current chairman. CEO Paul Hermelin has led the company since his appointment in December 2001. Capgemini helps clients deal with changing business and technology issues.

Services

CapGemini offers a wide range of solutions within four key areas of focus:

- Consulting Services
- Outsourcing Services
- Technology Services
- Local Professional Services

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Hewlett Packard

COI representative: **Erik Geelhoed**

Company overview

HP is a technology solutions provider to consumers, businesses and institutions globally. The company's offerings span IT infrastructure, global services, business and home computing, and imaging and printing.

For the four fiscal quarters ended October 31, 2006, HP revenue totaled \$91.7 billion making it the largest Information Technology company.

Products

HP has products in:

- Communications, media, entertainment
- Business solutions
- Networks
 - Servers: hardware (Digital, Compaq) and software
- Computers
- Mobile devices
- Imaging and Printing (includes cameras)

In the area of meetings, HP offers Halo Collaboration Studio (announced in December 2005) as well as a growing portfolio of telepresence products and services.

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IBM

COI representative: **Vova Soroka**

Company overview

IBM is a multinational computer technology and consulting corporation headquartered in Armonk, New York, USA. IBM manufactures and sells computer hardware and software, and offers infrastructure services, hosting services, and consulting services in areas ranging from mainframe computers to nanotechnology.

Over 600 individuals work at the IBM Haifa Labs; 25 percent of the technical staff have doctorate degrees in computer science, electrical engineering, mathematics, or related fields. Employees are actively involved in teaching at Israeli higher education institutions and supervising post-graduate theses. Many employees have received IBM awards for achievements and excellence.

In the area of meetings, Collaboration Technologies group of IBM Haifa Research Labs focuses on adapting well known collaboration tools and paradigms to the workplace. The group is developing collaboration middleware and tools that allow people to use collaboration more efficiently for their business needs. This group has strong skills both in development of collaborative tools and frameworks and in the social side of technology - User Interfaces, diffusion of technologies and usability.

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Intel

COI representative: **Cindy Pickering**

Company overview

The world's largest semi-conductor company, based on revenues, Intel has over 94,000 employees. The largest division, generating 56% of revenues in 2006, is the Digital Enterprise Group.

Intel has a significant IT group as well, which is responsible for running the infrastructure and services necessary for the operation of the global company. In the IT group there is research conducted on meetings and meeting technologies.

Products and services

Intel's products include chips, boards, and other semiconductor products that are the building blocks integral to computers, servers, handheld devices, and networking and communications products. Its component-level products consist of integrated circuits used to process information, including microprocessors, chipsets, and flash memory.

In addition, Intel is also engaged in other industries and develops products and services for internal as well as partner uses.

In the area of meetings, Intel has in the past sold various products, including Intel ProShare for desktop and small group videoconferencing. Currently the company has a number of products and technologies under development, such as 3D spaces for sharing information during meetings.

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LifeSize

COI representative: **Casey King**

Company overview

Founded in 2003 by videoconferencing industry veterans, LifeSize is an Austin, Texas-based SME. The company was the first commercial provider of enterprise HD videoconferencing end points.

Products

The company provides audio and video conferencing terminals with high definition video for personal, small and large group meetings

In addition, it provides infrastructure hardware and software for multipoint meetings and managing terminals and servers.

Services

WebEx is the largest provider of virtual meeting services (see WebEx profile below). The company also provides Teleconference Bridge and MeetingPlace Express hosting services.

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Logitech

COI representative: **Bernard Gander**

Company overview

Logitech is a large enterprise (approximately 7,400 employees worldwide) with headquarters in US and Switzerland. With fiscal 2007 sales exceeding \$2.1B, it is a world leader in personal peripherals, including PC navigation, Internet communications, digital music, home-entertainment control, gaming and wireless devices. Logitech's retail (to consumer) business accounts for 89 percent of its revenue. The company's original presence and growth in retail mice, webcams and speakers was driven by a trend among consumers to enhance their basic desktop PC systems with more fully featured personal peripherals that add functionality and cordless freedom to their desktop.

Products

In the domain of meetings, Logitech is the world's leader in webcam sales. It also develops and distributes third party software for enhancing video communications over the Internet and private corporate networks.

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Media Publisher

COI representative: **Rod Bacon**

Company overview

Media Publisher is an Emeryville, California-based SME.

The company provides solutions based on a modular software platform for media capture, management and delivery (publishing). The software platform centrally manages the video communications lifecycle, simplifying how organizations create, publish, manage, report, and deliver thousands of live and on-demand webcasts securely across corporate networks.

Products

Media Publisher has two enterprise product lines:

- Enterprise software solutions/services for content publishing
- Appliances/servers for content publishing.

Services

Media Publisher provides servers and a variety of value added services to telecommunications service providers such as AT&T.

Contacts

Media Publisher
Rod Bacon
2000 Powell Street, Suite 1650
Emeryville, CA 94608 USA

rbacon@mediapublisher.com

www.mediapublisher.com



MG Taylor

COI representative: **Tim Siglin**

Company overview

MG Taylor is a Nashville, TN-based SME providing products and services which improve the performance of groups.

Primarily focusing on large group interactions, MG Taylor offers furniture, custom-designed and modular spaces (architectural services), and integrated technologies which together form the platform for special meeting processes and facilitated group discovery.

Products

In Europe, MG Taylor has clients in Spain, Switzerland and Italy. The UniCredit NavCenter, in Turin, Italy, opened its doors on January 29, 2007.

This project is a benchmark for MG Taylor - perhaps, one of the first NavCenters capable, on a regional scale, of the mission set out by Matt Taylor a quarter of a century ago.

The largest open space can hold 300 people, and the space around it an additional 200, yet a team of five can be comfortable, and work effectively, in this same room without feeling lost. To use this space requires active interaction and participation on the part of the users. This is a designed-in feature of the system. There are 400 lights in the main area - each is individually controlled. There are 40 video displays with up to 8 different content feeds to each one, a sound system that can move the building, sound pickup, remote and hand controlled video cameras and, of course, plugs for electricity, media and computers.

Contacts

MGTaylor
Matt Taylor
me@matttaylor.com

MG Taylor
Tim Siglin
701 Yadkin Street
Kingsport, TN 37660 USA

tsiglin@gmail.com

www.matttaylor.com



Nokia

COI representative: **Imre Kiss, Julia Turku**

Company overview

Nokia is a large enterprise based near Helsinki, Finland. It is currently the world's largest manufacturer of mobile telephones, with a global device market share of approximately 38% in Q2 of 2007. Nokia is by far the largest Finnish company, accounting for about a third of the market capitalization of the Helsinki Stock Exchange (OMX Helsinki).

Products

Nokia produces mobile phones for every major market segment and protocol, including GSM, CDMA, and W-CDMA (UMTS). The corporation also produces telecommunications network equipment for applications such as mobile and fixed-line voice telephony, ISDN, broadband access, voice over IP, and wireless LAN.

Nokia Enterprise Solutions offers businesses, corporations and institutions a broad range of products and solutions, such as enterprise-grade mobile devices, underlying security infrastructure, software and services. Nokia also works with a range of companies to provide network security, bring mobilized corporate e-mail and extend corporate telephone systems to work with Nokia's mobile devices

Contacts

Nokia
Dr. Imre Kiss
Visiokatu 1
33720 Tampere, Finland

imre.kiss@nokia.com

www.nokia.com



Oracle

COI representative: **Carlo Tarantola**

Company overview

Based in Redwood City, California, Oracle is a large enterprise providing enterprise software and services to manage information. Globally, the company offers database management systems (DBMS), tools for database development, middle-tier software, enterprise resource planning software (ERP), customer relationship management software (CRM) and supply chain management (SCM) software.

Products

Numerous Oracle products could be important in the meeting information value chain, especially in the domains of knowledge management.

In the area of meetings, Oracle has Oracle Real Time Collaboration Suite, a set of tools permitting team Web conferencing, calendar and document management for team, group and business processes. The Collaboration Suite includes software for live audio and video web meetings.

In addition, Oracle mobile collaboration solutions permit people on the move to connect with meetings in progress and other enterprise collaboration resources.

Contacts

Oracle
Carlo Tarantola
522 chemin de la Colle
06560 Valbonne FR

carlo.tarantola@oracle.com

www.oracle.com



ParkWood Advisors

COI representative: **John Parkinson**

Company overview

ParkWood Advisors is a small Chicago, IL-based enterprise providing consulting services for innovation and process re-engineering to large enterprises globally.

Products

ParkWood Advisors develops custom products for clients.

John Parkinson is also a public speaker and author of many articles on the topic of emerging technologies. He is the author of Meetings in 2020, distributed at the workshop.

Contacts

ParkWood Advisors, LLC
John Parkinson
1130 E Ashley Road
Lake Forest, IL 60045

john@parkwoodadvisorsonline.com

www.parkwoodadvisorsonline.com



Polycom

COI representative: **Ed Gonen**

Company overview

Based in Pleasanton, California, Polycom is a manufacturer of teleconferencing and videoconferencing equipment. It is the videoconferencing market share leader in terms of units sold per quarter, approximately 42% according to a recent survey by Wainhouse Research. The company commands around 75% market share for tabletop voice conferencing devices. It is a medium sized company with approximately \$580M in sales annually.

Products and services

Polycom provides both audio (tele)conferencing and videoconferencing products and platforms for enterprise and service providers.

In the area of videoconferencing, it offers a range of products from personal desktop (software) up to telepresence solutions.

The company also provides videoconferencing servers/infrastructure hardware and software products for the monitoring and management of networks for video meetings.

Contacts

Polycom, Inc.
Stefan Karapetkov
3553 North First Street
San Jose, CA 95134 US

stefan.karapetkov@polycom.com

www.polycom.com

Ed Gonen
POBox 604
Yoqneam, Israel, 20692

ed.gonen@polycom.com

www.polycom.com



Quindi

COI representative: **Stan Rosenschein**

Company overview

Quindi is a small enterprise based in Los Altos, California. The company is develops and markets collaboration software allowing professionals and organizations to capture and share spoken information, video and data introduced in meetings.

Products

The company's first product, Quindi Meeting Companion, is used to record meetings and to enhance the meeting participants' ability to re-purpose and enrich past meetings

Contacts

Quindi Corporation
Stan Rosenschein
4966 El Camino Real
Suite 210
Los Altos, CA 94022 USA

Stan@quindi.com

www.quindi.com



RADVISION

COI representative: **Eli Doron**

Company overview

RADVISION is a medium sized Israeli-based research, US-based management medium size company. The company's products and technologies (developer toolkits) are used for videoconferencing, video telephony, and the development of converged voice, video and data over IP and 3G networks. RADVISION solutions support SIP and H.323, as well as ISDN and 3G network protocols.

Products

The company's product divisions provide servers, gateways, streaming systems, management software for meeting networks, as well as a software application platform for conferencing and collaboration (formerly CUSeeMe, acquired when RADVISION purchased First Virtual Corp).

The company's infrastructure solutions for videoconferencing are used by enterprises and service providers.

Contacts

RADVISION
Eli Doron
24 Raoul Wallenberg St.
Tel Aviv, 69719 Israel

elid@radvision.com

www.radvision.com



SMART Technologies

COI representative: **Gerald Morrison and David Popovich**

Company overview

A medium size company with 800 employees based in Calgary, Alberta, SMART Technologies is market-segment leader in easy-to-use interactive whiteboards and other group collaboration tools.

Products

The company provides a full line of interactive whiteboards and related products such as interactive pen displays and software for group collaboration and management of its devices on networks. The company also offers interactive digital signage, wireless slates and software for desktop audio, video and data conferencing, classroom management and concept mapping.

Contacts

SMART Technologies
Gerald Morrison
1207 11th Ave SW
Suite 300
Calgary, Alberta, Canada

GeraldM@smarttech.com

www.smarttech.com



Spiderphone

COI representative: **Pierre Wellner**

Company overview

Spiderphone is an SME based in New York and Martigny, Switzerland. It is a past AMI Consortium member.

Services

Spiderphone provides audio and web conferencing services for enterprises and individuals by way of an easy to use web interface.

The company offers meeting recording and archive management/hosting services as part of its portfolio.

Contacts

Spiderphone.com, Inc.
Pierre Wellner
135 William Street
7th Floor
New York, NY 10038 USA

wellner@spiderphone.com

www.spiderphone.com



TANDBERG

TANDBERG

COI representatives: **Snorre Kjesbu**

Company overview

TANDBERG is a Lysaker, Norway-based medium size company providing several lines of products for videoconferencing. TANDBERG frequently is the market share leader in videoconferencing, in terms of revenues. It generates approximately \$345M in sales per year. In October 2005, the company acquired Ectus Ltd, a New Zealand-based software development company specializing in streaming and media archiving software.

Products and services

TANDBERG offers a wide array of terminal products for audio, video and data conferencing ranging from personal desktop (software) up to telepresence rooms (partnership with HP).

The company also provides videoconferencing servers/infrastructure hardware and software products for the monitoring and management of networks for video meetings.

Contacts

TANDBERG
Snorre Kjesbu
Philip Pedersens vei 20
1366 Lysaker, Norway

snorre.kjesbu@tandberg.com

www.tandberg.com



Telecats

COI representatives: **Arjan van Hessen**

Company overview

Telecats is a small company based in Enschede, providing automatic speech to text transcription for commercial and judicial applications. Telecats is currently working on an application that records, recognises and/or aligns and indexes the speech of (maximal) 12 persons in Dutch courtrooms.

Products and services include

Telecats solutions and services:

CourtRoomRecognition: Recording all the speakers in a Dutch Courtroom in order to speed-up the transcription,. Align the speech after manual correction and making the aligned text/speech searchable. The recognition results however, can be used as well for indexation and retrieval. It is our wish to use the AMIDA-summarization software to build a tool with which judges can update their memory after a couple of weeks (even months) when a court session that was put on hold, starts again. Judges told us that it takes some time before they are back in the business. Playing the important parts of the recordings in the way suggested in Amsterdam, may help them to speed it up.

Spoken FAQ's: for a assurance company we build an application that asks people why they call the company. Recognition results are used to answer the callers with a pre-recorded answer

SpeechAnalytics: Processing >10K calls of a Dutch energy company in order to find out why callers are calling. Speech recognition is bad (>60% WER at the moment) but keywords are recognized reasonable well. It turns out that the statistics are great. With huge numbers misrecognised words are randomly distributed and the correct recognized words give a good indication of the various categories. Although it is a pilot, it seems that will receive a call for a official system. Other companies have shown interest as well, although the product is not just beta.

Contacts

Telecats
Arjan van Hessen
Post box 92
7500 AB Enschede, the Netherlands

A.J.vanHessen@ewi.utwente.nl

www.telecats.nl



WebEx

COI representative: **Steven Li**

Company overview

Based in Santa Clara, California, WebEx Communications is a Cisco company that provides on-demand collaboration, online meeting, web conferencing and video conferencing applications and hosted services.

Products and services

WebEx provides a suite of applications specifically designed for business processes such as sales, support, training and marketing processes. These include:

WebEx Meeting Center - Recreates face-to-face meetings with real-time data, application, voice and video sharing capabilities.

WebEx Sales Center - Features automatic attention notification to alert sales professionals when they are losing a prospect's attention, branded prospect portals to provide a secure location in which to share information and real-time sales analytics and reporting.

WebEx LiveStream - Specifically designed for large events (100 - 200,000 attendees) which require onsite production, TV quality video, voice and powerpoint.

Designed for small businesses, WebEx WebOffice provides an on-demand collaboration suite including a document manager, group calendar, database manager, task manager and several other collaborative business tools.

MeetMeNow is a web meeting application for individuals.

Contacts

WebEx
Steven Li
3979 Freedom Circle
Santa Clara, CA USA

Steven.li@webex.com

www.webex.com







AMI Consortium COI Mini-projects

to foster collaboration on applied research and accelerated transfer of AMI technologies



Overview

- Applied research or prototyping focusing on area of mutual interest
- Mini-project partners (minimum)
 - 1 AMI Consortium partner
 - 1 COI member
- Funds
 - AMI funds work of its scientists
 - COI member funds equal effort to be executed by COI staff/sub-contractor
 - Funding only for staff resources



Types of Mini-project

- Applied research
 - Engineering prototypes/concept demonstrators
- Feasibility studies
- User acceptance/usability testing
- Market assessment/business analysis
- Any pre-competitive research, development or marketing related activity of mutual interest



Process

- Meet and discuss ideas with potential collaborators
- Respond to call for proposals (submit)
- Selection by panel of AMI Consortium members
- Project awarded within 30 days of submission
- Project initiation/execution
- Project results submitted/demonstrated
- Payment awarded at conclusion



Program timeline



Eligibility

- All AMI Consortium partners
- All Community of Interest members
- Third parties – COI members may outsource their contributions to a Mini-project e.g. engineering/market assessment/user trial facilitation etc.



Criteria for selection

- **Topic focus**
 - Aligned with scope of the AMIDA project
- **Matching funds/effort**
 - Demonstrate equal and appropriate investments, appropriate resource/skill levels or access to them
- **Technology transfer potential**
 - Deemed likely to lead to transfer of AMI technology, if project results are positive



Confidentiality

- Mini-project proposals/reports public domain as with all EU funded research
- AMI Consortium partners share rights to mini-project generated IP for research
- AMI partner may request to publish results
- COI member & AMI partner can sign NDAs and agree/execute work outside the Mini-project's reportable objectives



IPR during Mini-project

- AMI/AMIDA background IPR made available via evaluation license(s)
- work of AMI Consortium partners covered by AMIDA project IPR agreement
- work of 3rd parties owned by 3rd party
- joint work has separately owned background IPR (AMI and COI) with all parties having right to exploit for purpose of mini-project



IPR after Mini-project

- **Foreground IPR:**
 - AMI partner and COI member both have right to exploit foreground IP generated on the Mini-project
- **Background IPR:**
 - Terms & conditions for COI partner use of AMI background IP to be negotiated with relevant AMI partner's technology transfer team & legal teams



End of project report

- **A report must be submitted describing**
 - Results of study
 - Demonstration developed
 - Results of evaluation/assessment
- **After a mini-project**
 - A follow-on AMI Mini-project?
 - A Mini-project in a new area?
 - A COI-funded evaluation/development project
 - Licensing?



Funds

- **AMI Consortium contribution**
 - At AMI Consortium daily rates
 - 10-30K €/mini-project
- **COI member**
 - Establish/publish daily rate
 - Actual cost breakdown for project in final report
- **Awarded to AMI Consortium partner at conclusion of mini-project**
- **Awards based on delivery of commitments**



Thank you

Any Questions ?

Contact cperey@perey.com





With the Community of Interest

Call for Proposals

Background

The AMI Consortium's second major collaboration, the AMIDA Project, is a European Union Framework Programme 6 Research Project which seeks to improve the experience of meetings and increase business productivity by using advanced signal processing and machine learning on human-to-human communications during enterprise meetings which involve both remote and local participants.

In order to increase the collaboration between AMI Consortium partners working on AMIDA and the members of the AMI Community of Interest, financial resources have been earmarked to support collaborative research or proof of concept projects.

This Call for Mini-Project Proposals sets out the guidelines and describes how interested AMI Consortium partners and CoI members can prepare proposals to receive support from AMIDA for technology transfer.

Selection criteria

AMI Mini-projects will be selected on the basis of:

Focus: project proposal should be directly and clearly aligned with the scope of the AMIDA project

Matching funds: the effort contributed by the COI member(s) must be equal to or exceed the AMI Consortium partner(s) effort. We recognize that different daily rates may apply to different expertise/resources contributed.

Technology transfer: deemed likely to lead to transfer of technology or to a new project/service contract if the initial project results are positive

Submission form, review/selection process and acceptance procedure

With the aim at minimizing the proposal submission overhead, resulting in easy and fast selection, a simple submission form is provided to all candidates. Proposers are encouraged to carefully follow the guidelines, avoiding general statements, favoring clear project objectives (well in line with current AMIDA focus) and clear progress evaluation metrics (list of milestones to be achieved).

Submissions will be accepted electronically by filling the form in MS Word or PDF format as an attachment to an e-mail sent to cperey@perey.com. An e-mail acknowledgement of the submission will be received within 48 hours. Project proposals will be evaluated within 15 days of submission by the AMI Mini-project Selection Committee, including possibly end user organizations, appropriate WP heads, and AMI partner representatives.

Although the AMI partner will be the Mini-project manager of record, for EC review and project communications purposes, notification of proposal acceptance or rejection will be sent to the co-proposers by e-mail within 30 days of proposal submission.



Financial and contractual obligations

Grants range and duration

Awarded grants can range from 10,000.- to 30,000.- Euros, covering only AMI human resources. A project shall have a budget for a minimum of 2 man-months, and a maximum of 6 man-months. The project shall be executed within a maximum of 12 calendar months of award of the mini-project.

Matching funds

COI member(s) must contribute value of human resources equal to or exceeding AMI human resources investment. AMI will pay for AMI partner human resources/engineering and research. COI member partner(s) must financially support their human resource investments.

Evaluation License(s)

AMI partner(s) are responsible for identification for the AMI intellectual properties needed for a proposed project. Evaluation license(s) with appropriate AMI partner(s), specifying the mini-project title and estimated duration/scope, must be signed by the COI member(s) prior to start of the project. The evaluation license will only cover the duration of the mini-project. See sample Evaluation License separately. AMI partner evaluation licenses may differ.

Collaboration Agreements

Upon AMI award of the mini-project grant, the partners will sign the mini-project collaboration agreement. This will not in any way address the rights of commercialization upon conclusion of the mini-project.

Eligibility

Mini-projects will only be considered for funding if they involve at least one COI Member and one AMI Consortium partner, with principal investigators/project leaders clearly named. The AMI Consortium partner will be designated the Project Manager.



Confidentiality and non-disclosure clauses

Due to the public nature (European Commission FP6) of the source of AMI funding and to comply with regulations prohibiting unfair competitive advantages, it is not possible for the AMI Consortium to fund research or development of prototypes or to conduct studies which are not subsequently available to the public.

Mini-projects involving confidential or sensitive technology strategies or emerging products may be conducted by AMI Consortium members and COI members on the basis of AMI technologies, but *cannot be funded as part of this program*.

End of Project Reports

At the conclusion of the mini-project, the partners must prepare, in order to receive the funding from AMIDA project:

- a written report (for internal AMI Consortium use), summarizing the min-project results
- a financial report showing partners expenses (human resources expressed in man-days)

Deadlines

The mini-projects can run any time during the life of the AMIDA project (January 2007-June 2009). The call for proposals is open and submissions will be welcomed at any time prior to January 31, 2009. Dates for proposed mini-project start and completion should be part of the included in the description of tasks/milestones.

Contact and information

Questions about the application procedure should be directed to Christine Perey. cperey@amiconsortium.org





Proposal Submission Form

Contact Info

[AMI Consortium Partner Proposer \(project leader\) Details](#)

Title	
Family Name	
First Name	
Email	
Institution	

[Community of Interest Member Co-proposer Details](#)

Title	
Family Name	
First Name	
Email	
Institution	
Position	
Areas of responsibility within company	



Community of Interest Member Co-proposer Details (if applicable)

Title	
Family Name	
First Name	
Email	
Institution	
Position	
Areas of responsibility within company	

Scientific Content

Proposal Title

--

Abstract (max 1000 Characters, approx. 150 words)

Short, but clear and precise!!! Clear project objectives and progress evaluation measures.



Key Words (open format, max 400 characters, approx. 50 words)

Text of proposal (max 10000 characters, approx 1500 words)

Should be clear and precise, clearly addressing the objectives of the AMIDA project, the mini-project and the proposed progress evaluation measures (milestones).

1. Background:

What is the opportunity/problem to be examined?

2. Mini-Project Objectives:

How does your mini-project help clarify this problem or solution?

Is this more a User acceptance project, Scientific research project or are you seeking to innovate in new areas?

3. Tasks (milestones you will reach):

Can be written as work packages to be undertaken in parallel or sequence.

4. Deliverables:

What will be the tangible mini-project output (report of results or demonstration)?

5. Technology which could be transferred or service could be provided by AMI partner(s) as a result of the mini-project:



Estimated Resource Distribution by Task
(using tasks listed/described above)

Activity (task list from above)	Which partner?	type of resource	man-days	daily rate (Euro)	subtotal for task
Total	Xxxx	xxxx		xxxx	Euros

Estimated Resource Distribution by Partner

Partner	type resources used	man-days	cost
Total AMI Cost	Xxx		Euros
Total COI member Cost	Xxx		Euros