10 Ethical issues

10.1 National regulations and identification of the issues

AMI targets computer enhanced multi-modal interaction in the context of meetings. The project aims at substantially advancing the state-of-the-art, within important underpinning technologies (such as human-human communication modeling, speech recognition, computer vision, multimedia indexing and retrieval). It will also produce tools for off-line and on-line browsing of multi-modal meeting data, including meeting structure analysis and summarizing functions. The project also makes recorded and annotated multimodal meeting data widely available for the European research community, thereby contributing to the research infrastructure in the field.

Thus AMI involves the collection of "meetings data", that is audio and visual records of what takes place in a meeting. There will be a number of microphones and cameras. Meetings will have up to 6 participants. Obviously, the personal information we are talking about here is not nearly as sensitive as, for example, medical materials but it is still important to treat this information with care and to adequately address the trust and privacy issues.

Consequently, the EC Ethics Committee asked us the following:
You should give particular attention to the following issues that have been identified by the scientific evaluation: Users will be recorded and monitored, but no solution is proposed to deal with the privacy and trust issues. Ethical issues (trust, privacy, and social acceptance) are mentioned but not explicitly addressed in the work programme.

In the following, we thus clarify the ethical issues arising from the collection and distribution of this data. To our knowledge no other activity in the AMI project has ethical implications.

Identification of countries where research will be carried out

AMI has partners in Switzerland, Great Britain, Germany, The Netherlands, the Czech Republic and the USA.

Identification of any important national regulations relating to the research and confirmation that the national regulations in those countries will be observed

The National regulations we are aware of are:

- Switzerland: The private data protection (mainly in the field of telecommunication) is stated in Article 13 of the Swiss Federal Constitution of April 18, 1999, related to the protection of private life information, and against abusive use of this private information. Furthermore, specific regulations related to data protection are also stated in the federal law of June 1992 and the Acts of 14 June 1993, 30 April 1997, and 31 October 1997. More information about these regulations can be found at: http://www.edsb.ch/e/gesetz/index.htm. Finally, on 26 July 2000, pursuant to the Directive 95/46/Ec of the European Parliament (http://www.edsb.ch/e/gesetz/eu/index.htm) and of the Council on the adequate protection of personal data provided in Switzerland, the EC acknowledged the fact that Switzerland ratified (on 2 October 1997) the Council of Europe Convention on the Protection of individuals with regards to Automatic Processing of Personal Data (Convention No. 108, http://conventions.coe.int/treaty/EN/cadreintro.htm).

- UK: the main UK regulation related to the protection of private data and "sensitive" private data are stated in the Data Protection Act of 1998, which can be accessed at: http://www.hmso.gov.uk/acts/acts1998/19980029.htm

- Germany: the German Research Foundation (DFG) supervises ethical aspects of the research projects of all affiliated research institutes. DFKI has officially subscribed to the very high ethical standards of the DFG. There are several Ethics committees established by DFG, which check the ethics of research in DFKI projects. No violations have been found during the last 15 years of existence of DFKI.

- In the Netherlands: There is a law concerning medical scientific experiments involving human subjects. This is the law which is the reference for the usability tests (involving camera registrations) at TNO Human Factors. More information about these regulations can be found at: http://www.minvws.nl/documents/IBE/Folder/WMO_BRO.PDF. There is also an organisation (The Central Committee on Research Involving Human Subjects, known by its Dutch initials, CCMO) implementing the supervision of this law. More information about this can also found at: http://www.ccmo.nl/.

  Finally, databases containing personal data have to abide to the Dutch law on the protection of personal data: http://www.justitie.nl/publicaties/dossiers/wet_bescherming_persoonsgegevens.asp?ComponentID=3755&SourcePageID=811.

- Czech Republic: The main law regulating the protection of private data is part of Law No. 130/2002 Sb, on the support of research and development from public funds and on change of some relevant laws (the law on the support of R&D), which can be accessed at:
  http://www.vyzkum.cz/index.asp?link=legisl/zakonvav/zakonvav.html

- USA: ICSI, our US partner, has already been involved in meetings recording for several year, and they thus already had to comply with very rigorous demands of UC Berkeley's Committee for the Protection of Human Subjects (CPHS) while collecting their Meeting Corpus. The CPHS website is http://cphs.berkeley.edu and it contains pointers to other locations (such as the Federal Office of Human Research Protections, OHRP, which contains the associated US rulings).

All AMI partners agree to make sure that all AMI recordings, as well as the processing and distribution processes, will satisfy all the above regulations. As described in Section 10.2, and building upon the previous experience at ICSI and IDIAP, several measures have already been defined and will be followed by all AMI partners.

Confirmation that the Commission will be informed of local or National ethics approval being obtained before relevant research is carried out

We confirm that the commission will be informed of local or national ethics approval being obtained before any research requiring this approval is carried out.

Identification of relevant EU and International legislation and confirmation that this will be observed

Relevant EU regulations are mainly stated in Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individual with regards to the processing of personal data and on the free movement of such data, and in particular Article 25(6) thereof.

All related regulations regarding the processing and transfer (including to third countries) of such data are thoroughly available and discussed in: http://www.edsb.ch/e/gesetz/eu/index.htm. Further discussion about these regulations are also provided at:
http://europa.eu.int/comm/research/science-society/ethics/ethics_en.html.

To our knowledge, all countries involved in AMI have ratified this European convention on the protection of individuals with regard to the processing of personal data.

Identification of research on humans or their tissues for which informed consent will be required together with details of the information that will be provided to those taking part and any provision made for their support and welfare

Research involving human participants is confined to multimodal recordings of meetings.

Following preliminary briefing sessions and documentation, informed consent will be obtained in writing from all the participants in AMI recordings before these recordings are made. AMI will provide for review of data by participants, who will be able to view and listen to their recordings. Participants will be able to withdraw any of their data if they wish. These measures are discussed in detail in Section 10.2.

Apart from general information such as name, age, gender, native language, recordings and demographic data, no other specific information will be stored about each participant.

Indication of how data storage and handling processes will ensure patient data protection and confidentiality

All data will be stored on secure, password-protected servers. There will be appropriate backups and firewall protection.

If data is to be released outside AMI, a second approval process will be carried out for all involved participants.

Data will be used for research purposes only, and we will hold the data only for the time of research, and as long as the scientific community can benefit from these data.

Again, concrete measures that will be taken within AMI to comply with the EC regulations, are further discussed in Section 10.2.

Justification for use of animals especially where this relates to non-human primates and transgenic animals - this should include justification of numbers and species and indicate clearly how the principles of reduction, refinement and replacement have been employed

There will be no animal work in AMI.

Further information on any ethics component in AMI, including details of those involved and clarification of the role, remit and integration of that element

AMI will establish a project ethics committee, with the remit to:

- Monitor usage and distribution of recordings
- Ensure that participant rights are respected and that relevant national and EU legislation is followed
- Consider new issues raised by indexing, browsing and search of meetings data, e.g. individual control and "privacy markup", i.e. allowing some part of the data to be marked as "private" and, consequently, treated confidentially
- Control that the measures described in Section 10.2 are properly followed.

An expert from outside the project teams will be regularly consulted by this committee.

10.2 MEASURES TAKEN WITHIN AMI

As discussed below, several initiatives will be taken in the course of the AMI project to ensure privacy of the collected data.

Research data collection and distribution

- General principle: all participants of recorded meetings must knowingly "opt in". This means that meeting participants will be informed through preliminary briefing sessions and documentation.
- Participant consent forms: A consent form will be signed by all meeting participants prior to recording, outlining:
  - The nature of the project and uses of the data
  - The participant approval/review process
  - Data access issues (both recordings and demographic data)
  - Subjects' responsibility for what they say
- Participants consent before distribution (within AMI and other interested parties)
- Post-transcription approval process: Participants will be given the opportunity to review (view and listen) to their meeting recordings in which they participated in order to approve (or request modifications to or deletions in) the transcriptions generated. We will provide password-protected web access for this review. We will not censor any data except as explicitly requested by the participants (including identifying names, etc. that may have occurred in the speech stream) and participants will be warned of this policy and of their responsibility in the consent form.
- Anonymization and censoring:
  - Segments of meetings that participants wish deleted will be replaced by a pure tone on all channels (a necessary step due to potential echo across channels). The content will be removed from the transcripts and replaced by a "censored" tag, again on all (transcribed) channels.
  - Participants will be identified exclusively by an ID code throughout the meeting documentation (except where their names naturally occurred in the speech stream).
  - All names and contact information will be deleted from the demographic database prior to release.
- Data access and storage: Participants will be informed as part of the consent process that this material was intended for release to the "multimodal interaction" research community. Early versions (prior to anonymization and censoring) will be kept on password-protected filesystems.
- All data stored on secure, password-protected servers.

Privacy implications of potential deployment of AMI technology

- Same "old" issues, such as the ones related to email and phone call archiving e.g. ownership of data, participants must be aware of recording, etc.
- New issues raised by indexing, browsing, and search: this will have to be studied very closely, and could involve individual control and "privacy markup", limiting access of the different information levels to different groups of people.
- These privacy questions will be studied as part of requirements analysis and HCI testing.

AMI Ethics Committee

An AMI Ethics Committee will be set up, and will have the following duties:

- Monitor usage and distribution of recordings
- Ensure that participant rights are respected and that relevant national and EU legislation is followed
- Consider new issues raised by indexing, browsing and search of meetings data, e.g. individual control and "privacy markup", i.e. allowing some part of the data to be marked as "private" and, consequently, treated confidentially
- Control that the measures described above are properly respected.
- Will ensure that National and EU data protection laws are followed, and will work with the appropriate agencies.