

humaine

D0f **Report Ethical Audit 2004**

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1. The Status of this Report

This report is a preliminary survey of some of the ethical issues which we will need to address in HUMAINE. Its purpose is to make the first steps in determining the best way of developing standards of good practice, and hence the first steps in the in-depth study of ethical issues which is part of WP10. The reasons why the systems that HUMAINE is concerned with have an ethical dimension are described in section 11 of the Technical Annex and in sub-section B.1 of section 2 of D10a (report on ethical prospects and pitfalls for emotion-oriented systems); they emerge in greater detail in the answers to the questionnaire and in this report.

With the audit form, information was gathered regarding what emotion-oriented systems the individual consortium members are developing. This is not (not necessarily, at least) work that is immediately part of HUMAINE, but rather covers the wider background that HUMAINE builds upon. Partners are carrying out individual projects across a wide range of areas which go (sometimes far) beyond the focus of HUMAINE research. The ethics of emotion-oriented systems, however, ought to consider as complete a picture of emotion-oriented systems as possible.

The questionnaire is at the centre of this audit. It was circulated to all partners in November 2004, according to a list of ethical contacts which was provided by the project coordinator. Partners were asked to fill in the questionnaire and send it back to us by Friday, 10th December 2004.

A table containing the name and email address of all current ethical contacts is to be found below.

Partner	Current Contact	Email Address
QUB	Ian Sneddon	i.sneddon@qub.ac.uk
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T-systems	Felix Burkhardt	Felix.Burkhardt@t-systems.de

2. Annotation on the Questionnaire

A copy of the questionnaire is to be found in the appendix (5.A); the appendix also includes statistics of answers (5.B). The questionnaire is subdivided into three sections:

- I. Ethics in the research of emotion-oriented systems
- II. Ethics in emotion research with human participants
- III. Ethics in the development of emotion-oriented systems.

ad I.

The first section concerns the ethical procedures being followed by the individual institution. The aim is to clarify which institutional standards and obligations are in force in the members of the HUMAINE consortium. We also try to gain a grasp of the different cultures of the individual partners. The section comprises seven questions (1 to 7). It starts by asking who in the individual institution has overall responsibility for the ethical implications of research (1). We then (2 to 5) ask for the bodies or committees from which the partners seek ethical approval for their research, and for the code of conduct followed by these bodies or committees (if any). Partners are also asked whether they feel that the ethical review procedure—given that ethical approval for research has already been obtained—dealt adequately with all ethical aspects of their research (6). In addition, they are asked to ‘self-assess’ by rating their research in terms of the ethical problems it is seen to generate (7).

ad II.

In the second section we ask for ethical problems arising from research involving experiments with human participants. We limit ourselves to four questions (8 to 11) as ethical guidelines for psychological research in general do already exist (such as those set down by the British Psychological Association’s Code of Conduct). Yet we try to find out how human participants are involved in experiments because this might have an impact on standards of good practice for research on emotion in particular (9 to 10). Furthermore, partners are asked to assess the level of risk posed to participants (11).

ad III.

In the third section we start with the new field of ethics in the development of emotion-oriented systems. The first three (12 to 14) out of the twenty-one questions (12 to 32) which this sections comprises are meant to give a first impression of the research profile of each partner. We continue by asking for possible ethical implications of advances in the study of emotion-oriented systems (15 to 24). These implications include

- a) Reliability of technology (15)
- b) Access to technology (16)
- c) Possible misuse of technology (17)

- d) Possible objections against the nature of research raised on ethical grounds (18)
- e) Data protection and privacy of users (19 to 20)
- f) Manipulation of users (21 to 22)
- g) Ethical status of avatars (23 to 24)

To ensure that we do not miss anything of importance, partners are asked whether they see any other ethical implications of their research which are not covered so far (25). They are also asked whether they discussed the questions raised in this section with the body or committee from which they seek ethical approval, and, if so, whether this body or committee provides a particular code of conduct with regard to those questions. This (26 to 27) is to clarify the state of ethical knowledge among partners, and, in particular, to establish to what extent the members of HUMAINE are already sensitive to ethical issues emerging from the development of emotion-oriented systems. As another way of clarifying their expectations, we ask them whether they think that there are weaknesses in their own adopted standards and obligations (31), and whether they can think of any further standards of good practice that should be adopted (32).

A further issue are the legal standards and obligations on which partners operate: What are these standards and obligations (28), and on whom do partners rely for legal advice (29 to 30)? Legal differences between individual countries within the HUMAINE project will be of central importance.

3. Analysis

Q1 *Who in your organization has overall responsibility for the ethical implications of your work?*

24 partners (out of 27) answered the question:

Answer	Number
Not sure	2
Nobody / no specific institution	4
Everybody for their own research	2
Specific ethics committee	5
Head of department / director of institution	7
In-house lawyer	1
HUMAINE ethical contact	3

In 8 cases it is not clear who has overall responsibility. The answer ‘Everybody for his own research’ needs to be elucidated: As it is rather unlikely that everybody participating in a project is also an expert on ethical issues, the question of responsibility ought to be settled.

Q2 *What is the main body or committee from which you seek ethical approval for your research?*

23 partners answered the question:

Answer	Number
Not sure	2
Nobody / no specific institution	9
Specific ethics committee	6
General research committee / association	5
HUMAINE ethical contact	1

Only 11 partners do name a body or committee. This has consequences also for the next question:

Q3 *Does this body follow a particular code of conduct (e.g. the British Psychological Society code of conduct)?*

22 partners answered the question:

Answer	Number
Yes	5
No	10
Not sure	7

As pointed out above, the aim of this section is to clarify which institutional standards and obligations (such as those set down by the British Psychological Society or the Deutsche Gesellschaft für Psychologie in their Code of Conduct, Ethical Principles and Guidelines) are in force in the institutions of the HUMAINE members. The answers given to Q3 show that such standards and obligations are recognised only in 5 cases. 7 partners are not sure, so that clarification is needed here. Some partners refer to the general law in their country (such as the Bayerisches Datenschutzgesetz). However, it is unrealistic to expect that the existing legal standards and obligations suffice to deal with a future technology where there is no decades-old debate to draw upon.

Q4 *Are there any other bodies from which you must receive permission before conducting your research?*

24 partners answered the question:

Answer	Number
Yes	2
No	18
Not sure	4

Further clarification is required in 6 cases. In particular, it must be sorted out whether the standards and obligations set down by the different bodies mentioned are compatible.

Q5 *Ethical approval for research has a) already been obtained; b) been applied for but not yet obtained; or c) not yet been applied for?*

23 partners answered the question:

Answer	Number
A	5
B	3
C	15
assistance requested	2

In 15 cases ethical approval has not yet been applied for, yet only 2 partners would like assistance with application. It needs to be clarified whether in the remaining 13 cases there is no need of ethical approval. This assessment might well be mistaken. It might well turn out that ethical issues emerge from advances in the study of emotion-oriented systems which have not yet been taken into consideration. This is indicated by a comment on the next question:

Q6 *Did you feel that the ethical review procedure dealt adequately with all ethical aspects of your research?*

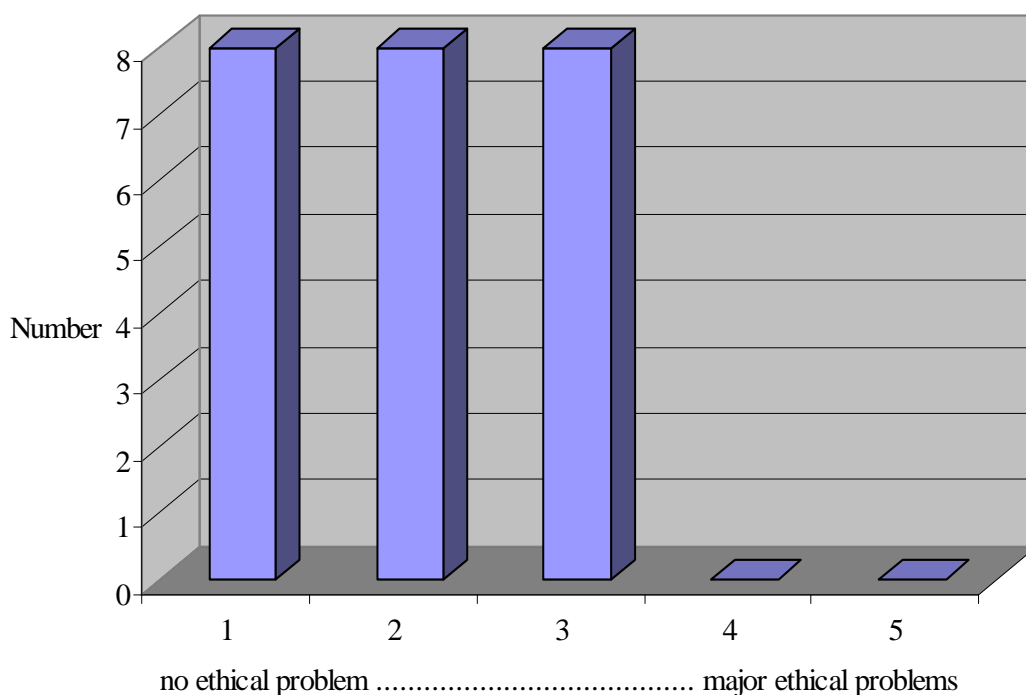
9 partners answered the question:

Answer	Number
Yes	5
No	1
Not sure	3

The partner who answered ‘no’ pointed out that the ethical committee responsible for their research ‘is oriented towards medical research and does not understand usability research with software’. The same might apply in other cases as well. Apart from this, the answers to Q6 indicate that only 8 of the projects surveyed have been through an ethical review procedure so far.

Q7 *How would you rate your research in terms of the ethical problems it generates? (please tick one number from 1 for ‘no ethical problems’ to 5 for ‘major ethical problems’)*

24 partners answered the question:



No partner thinks that their research generates major ethical problems. This might be true if one compares research on emotion-oriented systems with the question of euthanasia, say. However, even if it is not a matter of life and death which is at stake here, the emotional state of persons is central to their overall well-being. Further, emotion-oriented systems tap into an interface of human beings to their Umwelt that is at best only under partial voluntary control and where stimuli are processed and assimilated unconsciously. Given this, there is, to say the least, some tension between the responses to this question and the responses to the next question, Q8. It will be a—arguably *the*—crucial issue in our future research to find out whether the ‘self-assessment’ shown in the above diagram is correct.

Q8 *Are you conducting research involving experiments with human participants?*

24 partners answered the question:

Answer	Number
Yes	21
No	3

Q9 *How do you involve human participants? a) You gather emotional and/or emotion-related data from existing material (e. g. TV footage) involving human participants; b) You are gathering your own material by observing emotional reactions of human participants under experimental conditions; c) You ask human participants to classify emotional reactions of others; d) You try to induce emotional and/or emotion-related states in human participants.*

21 partners answered the question:

Answer	Number
A	5
B	16
C	12
D	10

The most important question with regard to ethics is Q9.d (although others can be highly relevant, too). In 10 cases researchers try to induce emotional and/or emotion-related states in human participants which clearly might have an impact on their well-being. However, no one thinks that this might have an influence on the personality of the individuals involved in their experiments, as documented in the answers to the next question:

Q10 *Do you think that your research might have an influence on the personality of the individuals involved in it?*

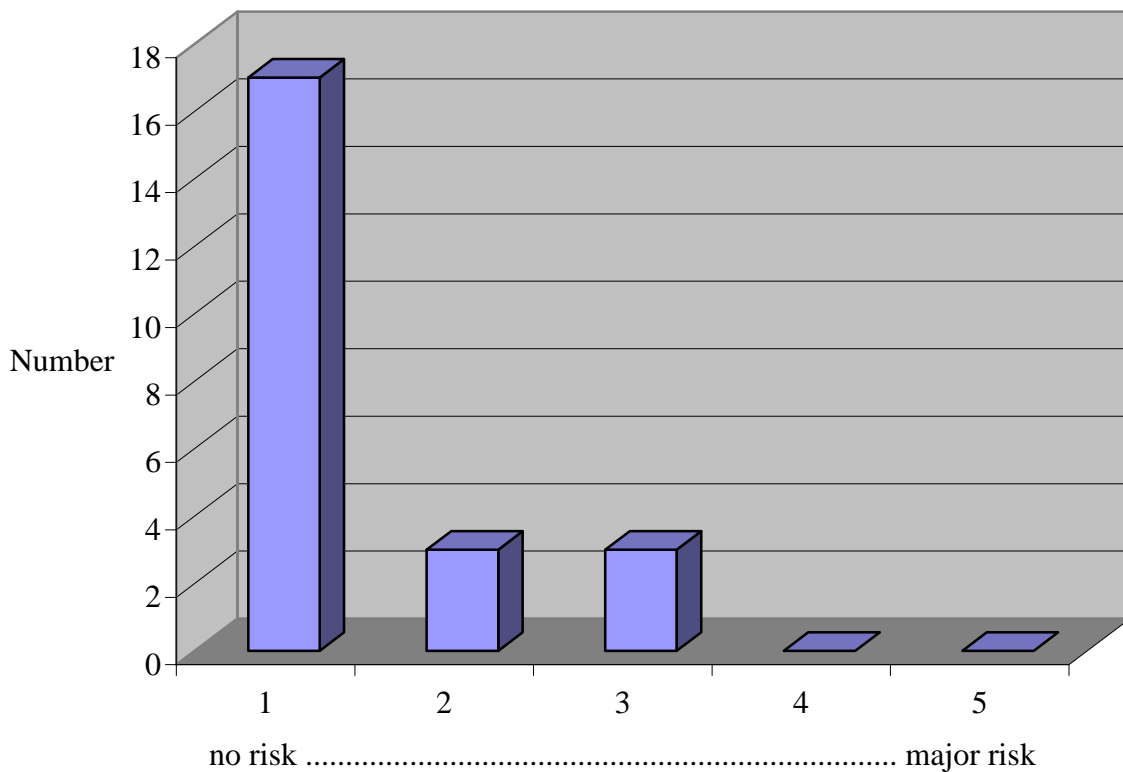
10 partners answered the question:

Answer	Number
Yes	0
No	9
Not sure	1

In fact, most partners think that there is no risk posed to participants:

Q11 *How do you assess the level of risk posed to participants (please tick one number from 1 for 'no risk' to 5 for 'major risk')?*

21 partners answered the question:



We think that it would be important for our future research to gather more information on how participants are actually involved in experiments. This would be necessary to assess the self-assessment shown in the above diagram, and in reply to Q7.

Q12 *Do you develop emotion-oriented systems?*

25 partners answered the question:

Answer	Number
Yes	19
No	6

Q13 *What does your system involve? Is it ready to be used?*

Answer	Number
Yes	7
No	10
Not sure	2

19 partners answered the question and provided a short description of their technology: Emotions for virtual humans; an artificial dialogue system for use in giving automated information to the public, or for use in automated booking or ticket systems; graphical agents with affective systems in virtual dramas for education against bullying where the development of empathy is seen as a goal; synthesis of emotional speech from text and markup; recognition and display of emotions; stress recognition in driving situations; a model to detect and characterise the expression of emotion in users' voices by different criteria (acoustical, linguistic and dialogic); embodied conversational agents attempting to express emotion through facial expression, gaze and gesture; affective aspects of cognition and action selection; HCI communication systems based on emotional reactions and the role of emotions in controlling communication patterns in email or chat systems; simulation of face and body animation as an emotional expression tool; persuasive systems for HCI, mainly in a scenario for promoting social values; allowing end-users to express their emotions through tangible interaction; communicating machine analysing user's emotional state and reacting to it; analysis of expressive features in user's behavior (mainly in human full-body movement); investigation of recognition of emotion; strategies for mapping expressive cues and recognized emotions onto suitable generation of expressive multimedia output; the synthesis of emotional responses using emotion theories..

As can be seen from this, the technologies being developed by partners of the HUMAINE framework differ widely. To cover all of the probably different ethical implications nonetheless, the questions in this section are put in rather general terms. However, in our future research it will be necessary to examine the individual technologies more closely to identify and account for the specific ethical issues that emerge. By now, 7 systems are ready to be used, whereas 11 are still under construction (see also Q14). The examination of individual technologies may begin with those systems which are ready to be used at this stage, because people could be affected who do not intentionally or consciously take part in HUMAINE research, be it as researcher or participant in experiments. Of course, this is not to say that research in an earlier stage can be neglected.

Q14 *When will your system be ready?*

Assessments vary from several months to three years (i.e., end of 2007).

Q15 *Do you have controls and monitoring on the reliability of the technology, so that exaggerated claims cannot be made on its behalf (cf. the Polygraph)?*

16 partners answered the question:

Answer	Number
Yes	7
No	1
Not sure	8

3 partners who develop emotion-oriented system did not answer this question and also did not provide a reason for this omission. 8 are not sure, so that a satisfactory analysis will require further research.

Q16 *Who will have access to / might be interested in your system?*

18 partners answered the question:

Area	Access	Interest
Science	14	12
Commerce, as (part of) a product	8	11
Commerce, for enterprise internal use (e. g. assessment of employees)	2	2
Commerce, for enterprise external use (e. g. assessment of customers)	3	5
Defence	1	5
Public security	1	5
Court of law (cf. use of Polygraph)	0	1
Education	8	12
Therapy	2	6
Private use (e. g. for fun and games)	6	12
Criminals	2	1
Anything else	0	3

As the answers given to this question show, the technologies being developed by members of the HUMAINE consortium cover almost any area from scientific research to private use. Some systems appear to be also of interest to criminals, and criminals might even have access to them—a clear case for an ethics of emotion-oriented systems. In addition, one might wonder whether all those systems which are of interest to commerce, defence, public security, and court of law are not also of interest to criminals. Leaving aside this drastic way of misuse, the interest of commerce, defence, public security, and court of law might be an ethical minefield in itself, particularly given that infringement of personal rights is a substantial and highly topical issue in questions of defence and public security. And the ethical dimension of commercial use is likely to comprise more than data protection and privacy issues. Even the educational and therapeutic use of machines in such personal affairs as a subject's emotions might generate ethical problems.

Q17 *Can you imagine that your system could be misused in the wrong hands?*

18 partners answered the question:

Answer	Number
Yes	3
No	12
Not sure	3

The answers to Q17 demonstrate a great confidence of partners in that a misuse of their systems can be excluded, and again there is possible tension between this confidence and then responses to Q16. Only 3 partners can imagine a misuse, and further 3 are not sure. Among those who answered 'yes', one points out the following possible misuse: 'Indeed, this system could be used in call centres to assess tele-operators and the quality of the answers they give to customers: do they keep their calm and are they still polite beyond a miscontent customer? This type of automatic evaluation of the people's work could be a misusing of our system'. This would indeed generate ethical problems—maybe even major ones.

Q18 *Do you think it is likely that the nature of your research will raise objections on ethical grounds (e.g., by government, trade unions, individual persons)?*

18 partners answered the question:

Answer	Number
Yes	3
No	12
Not sure	3

As to Q17, 12 partners answered 'no' to Q18. And again we have only 3 partners who think that it is likely that the nature of their research will raise objections on ethical grounds, and further 3 who are not sure. Among those who answered 'yes', one mentions the following point: 'If, one day, the simulation becomes so real that it will be difficult to distinguish from human expression, people might object to being misled into believing that they are dealing

with a human while in reality they interact with a machine'. Since this is a very general problem in human-machine interaction, it casts doubt on the judgement of those who are confident that nobody will object to their research on ethical grounds.

Q19 *Do you see the possibility that your system could be used without the voluntary informed consent of every person involved? Because a) of its undetectable use; b) of its compulsory use; c) of any other reason?*

18 partners answered the question:

Answer	Number
Yes	8
No	10
A	3
B	1
C	4

While 10 partners are sure that their system could not be used without the voluntary informed consent of every person involved, 8 partners say that it could. However, 2 out of these 8 partners think that the use is undetectable but benign. To make a reliable ethical judgement, we shall have to study the individual systems.

Q20 *Could your system be used to ascertain and/or collect data on human subjects that might be considered as private?*

19 partners answered the question:

Answer	Number
Yes	2
No	13
Not sure	4

Most partners think that their systems could not be used to ascertain and/or collect data on human subjects that might be considered as private. Only 2 partners answer 'yes', whereas 4 partners are not sure. The partners who answer 'yes' account for this answer by pointing to the fact that subjects might want to hide their emotions and individual personality traits. This concerns the question of privacy rights. Dealing with this question appropriately again requires us to look at the individual systems and their context of use.

Q21 *Could your system be used to influence the real life decisions of human subjects? If 'yes', could this be done without an individual's awareness of being influenced that way?*

19 partners answered the question:

Answer	Number
Yes	6
No	9
Not Sure	4
<i>If 'yes'...</i>	
Yes	1
No	5

6 partners say that their system could be used to influence the real life decisions of human subjects, another 4 that they are not sure whether it could. However, only in one case could this be done without an individual's awareness of being influenced that way. Thus the question of ethically problematic decision manipulation would appear to arise only in one case.

Q22 *Could your system induce a long-term change of dispositions to decide, i. e., might it change an individual's personality?*

19 partners answered the question:

Answer	Number
Yes	0
No	14
Not sure	5

5 partners are not sure whether their system could induce a long-term change of dispositions to decide, i. e., whether it might change an individual's personality. This needs to be clarified as the ethical problem we are facing here is that of an intrusion upon individuals' personalities, and that implies: upon their rights and privacy.

Q23 *Does your research involve deriving systems (e. g. avatars) that are capable of having or appearing to have emotions?*

18 partners answered the question:

Answer	Number
Yes	14
No	4

14 partners are deriving systems (e. g. avatars) that are capable of having or appearing to have emotions. The question is whether this capacity might have an impact on the ethical status of such systems: might we end up creating personae with moral rights and duties? One partner emphasises that they ‘think that it is important to begin studying the development of ethical attitude and judgement of an autonomous agent’. We share this view: autonomous virtual agents are not merely a science fiction fantasy but a real issue in applied ethics.

Q24 *If ‘yes’, do you and your colleagues find yourselves treating the system as a person (e. g., did you ever feel guilty towards your avatar when switching off your computer)?*

14 partners answered the question:

Answer	Number
Yes	1
No	13

Apparently, only one partner finds themselves treating their system as a person. This comes as a surprise as studies show that even ordinary computers tend, at least in some respects, to be treated as persons by their users (spoken to, cursed, addressed as ‘he’ or ‘she’ etc.). Therefore it seems reasonable to be sceptical that this should be different with virtual beings that are even capable of having or appearing to have emotions. In addition, we expect that future users of a system might show a greater tendency to take avatars at face value and thus to treat them as a person compared to its creator who knows the code behind the screen. Again, it will be a great help to our future research to look at the individual systems.

Q25 *Do you see any other ethical implications of your research which are not included in the questions above?*

18 partners answered the question:

Answer	Number
Yes	3
No	15

Only 3 partners see ethical implications of their research which are not included in the questions above. One of these implications was quoted above and concerns the application of emotion-oriented systems in education (see Q16). A second one concerns the ethical status of avatars (see Q24). A third ethical implication seen by one partner is the ‘need to provide exit strategies when deploying technology (even for testing purposes)’. One cannot deploy a system that can be expected to e.g. generate affective bonding for test purposes without thinking of how to help the test candidate to cope with subsequent deprivation (picture, e. g., a personal assistant robot for the elderly that works well enough: if it was tested for a month or longer, then there should be some measures available to help the elderly in question to get adapted not to having this technology at their disposal any more. Of course the same holds (all the more) for ‘working products’: we would consider it highly unethical to deploy products that instantiate affective phenomena such as attachment without also providing means to cope with this. The tamagotchi e.g. could be seen to have clearly transgressed in this respect in at least a number of highly publicized cases.

Q26 *Did you discuss the questions raised in this section with the body or committee from which you seek ethical approval for your research?*

14 partners answered the question:

Answer	Number
Yes	3
No	11

It does not come as surprise that only 3 partners discussed the questions raised in this section with the body or committee from which they seek ethical approval. On the one hand, it is 11 partners only who name a body or committee from which they seek ethical approval (see Q2). On the other hand, the questions in this section concern a field in applied ethics which is still to be developed. Standards of good practice need to be formulated for a future technology. Even though this task impinges on a multiplicity of traditional moral and current political issues, it will most likely not yet be properly addressed by ethical bodies or committees.

Q27 *If ‘yes’, does this body or committee provide a particular code of conduct with regard to those questions?*

3 partners answered the question:

Answer	Number
Yes	2
No	1
Not sure	0

The partners who answered ‘yes’ refer to the general law in their country. But, as pointed out above already (Q3, Q26), it is unrealistic to expect that the existing legal standards and obligations suffice to deal with the impact of future emotion-oriented systems.

Q28 *What are the legal standards and obligations you operate on?*

9 partners answered the question. They name quite different legal standards and obligations (if any): All European Union and United Kingdom legislation / Life is too short—all the ones that are relevant to what we do / German law—don't know about the details / Bayerisches Datenschutzgesetz / National legislation, Council for Personal Data Security / Don't know / Data Processing, Data Files and Individual Liberties Act 1978, Loi pour l'économie numérique 2004 / Helsinki declaration, European and National legislation, any additional rules and policies related to the specific piece of work / European human rights legislation, Helsinki Declaration, Human Rights Act 1988, Data Protections Act 1990, Access to Health Record 1990, Freedom of Information Act 2000, Common Law Obligations of Confidentiality / The ordinary Italian legislation.

As can be seen from this, legal differences between individual countries within the HUMAINE project are of central importance. First, issues which are covered by national or EU legal standards in *every* EU country must be identified, since WP10 does not need to reiterate them. Secondly, issues covered by some national laws, but left open by others, must be integrated: the non-EU partners of HUMAINE may be of particular relevance in this respect. Thirdly, issues which newly emerge from the study of emotion-oriented systems must be classified and accounted for.

Q29 *Do you rely on your own institution's in-house lawyers for legal advice?*

18 partners answered the question:

Answer	Number
Yes	14
No	4

Most partners do rely on their own institution's in-house lawyers when they need legal advice. However, as it is not to be expected that the existing legal standards and obligations suffice to deal with the future technology of emotion-oriented systems, this strategy needs to be reconsidered.

Q30 *If 'no', who else or which other institution do you rely on?*

4 partners answered the question: IT consultant / Legal judgment of the administration / DGP / Lawyers, consulted on a case by case basis. The same comment as to Q29 also applies here.

Q31 *Do you think that there are weaknesses in your own adopted standards and obligations?*

18 partners answered the question:

Answer	Number
Yes	4
No	14

Most partners think that the standards and obligations which (they think) are in force in their institution suffice. Two reasons cast serious doubt on this. First, as we have repeatedly argued above, we do not see how a technology yet to be developed could be dealt with appropriately in the light of completely infant ethical knowledge on this new technology. To quote one of the partners who acknowledges weaknesses in their adopted standards and obligations: ‘There are not yet clear guidelines for the uses of emotion oriented systems or even what questions we should be asking about applying such systems’. The second reason is put very clearly by another partner: ‘Anyone who thinks they have the perfect answer and doesn’t need to think about what they specifically are doing is eventually going to make a major error. Standards are a perennially blunt instrument’. As we understand this comment, it points out the fact that it is not clear in advance whether all ethical problems can be settled by fixed standards in the first place. Case by case assessment, i. e. approval by a specific committee, might be required.

Q32 *Can you think of any further standards of good practice that should be adopted in anticipation? Please give details.*

17 partners answered the question:

Answer	Number
Yes	6
No	11

The answers to this question are in some tension to the answers given to the preceding question, Q31. Although 13 out of 17 partners do not see any weaknesses in the standards and obligations which their institution adopts, 6 out of 16 can think of further standards of good practice that should be adopted in anticipation.

4. Consequences for Our Future Work

First, a number of questionnaires were filled in incompletely and/or with one or more inconsistencies, concerning content as well as form. It is not possible to single out questions where this is particularly virulent: each question was answered sensibly by at least some partners. Instead, the shortcomings may be interpreted as pointing out the natural limitation of this general, HUMAINE-wide questionnaire method, essential as it has been as a starting-point. The general nature of the questionnaire did not leave room to explore the particular ethical frameworks of individual projects—a reflection of our concerns not to overly constrain this first probe and also to make the questionnaire as fast and easy to fill in as possible.

So, rather than compiling a second, more in-depth questionnaire, we think it is better for us to contact the partners one by one for the second step, using their answers to the questionnaire as a place to begin the discussion. We, being philosophers and not psychologists or computer scientists, need to learn first-hand just what the partners and their systems actually do. This would be the basis for further investigation of ethical issues, which would then also take place one by one. On a practical level, exchanges can take place at HUMAINE workshops and meetings. These also offer a forum to spark awareness and discussion on specific issues and to get a quick first indication of common knowledge and positions – identifying available expertise as well as (important) deficits. Further, as already mentioned in the previous section, we shall visit the projects where they are in operation. We can then more securely move from the specific to more general HUMAINE-wide conclusions, bringing to bear ethical principles as we progress.

An additional complementary and important resource is the HUMAINE portal: already, first position statements have been contributed spontaneously by partners who in reflection on issues raised by the questionnaire commented on prior experiences and offered individual points of view for discussion (automatically reflected on a related HUMAINE mailing list). The portal further provides a natural hub for the collection of disparate references that will be sighted and integrated in our upcoming efforts.

Finally, the multiplicity of national and international legal and organisational standards has to be ordered. We need to get a clear grasp of what is already settled and what remains to be done by us. The questionnaire revealed that the partners have far from a common ground of knowledge on these issues, and we need to review literature and consult bodies on this, too. However, these national and international standards may well not be specific enough for the purposes of this new and fast-changing scientific field of enquiry. While some problem areas can surely be regulated by general legal and/or institutional standards and obligations, it may well emerge that some other problem areas, of a nature particular to the HUMAINE project, will require case to case assessment by a standing ethical committee, comprised perhaps of HUMAINE members and some outsiders (the discussion on the portal already topicalised the pros and cons of internal vs. external review authorities). This suggestion raises a wide range of important issues which will need to be addressed in due course. But its attractions should be self-evident.

5. Appendix

A. Questionnaire

QUESTIONNAIRE / HUMAINE ETHICAL AUDIT 2004

Peter Goldie & Sabine A. Döring, King's College London

Your name and affiliation :

I. Ethics in the research on emotion-oriented systems

- 1 Who in your organization has overall responsibility for the ethical implications of your work?
- 2 What is the main body or committee from which you seek ethical approval for your research?
- 3 Does this body follow a particular code of conduct (e.g. the British Psychological Society code of conduct)?
Yes No Not sure
If 'yes', please give details.
- 4 Are there any other bodies from which you must receive permission before conducting your research?
Yes No Not sure
If 'yes', please give details.
- 5 Ethical approval for research has
a) already been obtained b) been applied for but not yet obtained c) not yet been applied for
If 'a', please go to question 6. If 'b' or 'c', please go to question 7.
If you have answered 'c' to this question and you would like assistance with any aspect of the application, please indicate here
- 6 Did you feel that the ethical review procedure dealt adequately with all ethical aspects of your research?
Yes No Not sure

If 'no' or 'not sure', please give details.

- 7 How would you rate your research in terms of the ethical problems it generates? (please tick one number from 1 for 'no ethical problems' to 5 for 'major ethical problems')

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5

II. Ethics in emotion research with human participants

- 8 Are you conducting research involving experiments with human participants?

Yes No

If 'yes', please answer the following questions. If 'no', please continue with section III.

- 9 How do you involve human participants?

a) You gather emotional and/or emotion-related data from existing material (e. g. TV footage) involving human participants.

b) You are gathering your own material by observing emotional reactions of human participants under experimental conditions.

c) You ask human participants to classify emotional reactions of others.

d) You try to induce emotional and/or emotion-related states in human participants.

- 10 If 'd': Do you think that your research might have an influence on the personality of the individuals involved in it?

Yes No Not sure

- 11 How do you assess the level of risk posed to participants (please tick one number from 1 for 'no risk' to 5 for 'major risk')?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5

III. Ethics in the development of emotion-oriented systems

- 12 Do you develop emotion-oriented systems?

Yes No

If 'yes', please answer the following questions. If 'no', thank you very much for your cooperation!

13 What does your system involve (broad outline)?

Is it ready to be used? Yes No Not sure

14 If 'no', when will it be ready?

15 Do you have controls and monitoring on the reliability of the technology, so that exaggerated claims cannot be made on its behalf (cf. the Polygraph)?

Yes No Not sure

16 Who will have access to / might be interested in your system?

	Access	Interest
Science	<input type="checkbox"/>	<input type="checkbox"/>
Commerce, as (part of) a product	<input type="checkbox"/>	<input type="checkbox"/>
Commerce, for enterprise internal use (e. g. assessment of employees)	<input type="checkbox"/>	<input type="checkbox"/>
Commerce, for enterprise external use (e. g. assessment of customers)	<input type="checkbox"/>	<input type="checkbox"/>
Defence	<input type="checkbox"/>	<input type="checkbox"/>
Public security	<input type="checkbox"/>	<input type="checkbox"/>
Court of law (cf. use of Polygraph)	<input type="checkbox"/>	<input type="checkbox"/>
Education	<input type="checkbox"/>	<input type="checkbox"/>
Therapy	<input type="checkbox"/>	<input type="checkbox"/>
Private use (e. g. for fun and games)	<input type="checkbox"/>	<input type="checkbox"/>
Criminals	<input type="checkbox"/>	<input type="checkbox"/>
Anything else	<input type="checkbox"/>	<input type="checkbox"/>

17 Can you imagine that your system could be misused in the wrong hands?

Yes No Not sure

If 'yes', in what particular area, and why? Please give details.

18 Do you think it is likely that the nature of your research will raise objections on ethical grounds (e. g. by government, trade unions, individual persons)?

Yes No Not sure

If 'yes', who might object and why? Please give details.

- 19 Do you see the possibility that your system could be used without the voluntary informed consent of every person involved?

Yes No

If 'yes', because

a) of its undetectable use (e. g. by a commercial company on its employees)

b) of its compulsory use (e. g. in airport security)

c) of any other reason. Please give details.

- 20 Could your system be used to ascertain and/or collect data on human subjects that might be considered as private?

Yes No Not sure

If 'yes', what kind of data would these be? Please give details.

- 21 Could your system be used to influence the real life decisions of human subjects?

Yes No Not sure

If 'yes', could this be done without an individual's awareness of being influenced that way? Yes No

- 22 Could your system induce a long-term change of dispositions to decide, i. e., might it change an individual's personality?

Yes No Not sure

- 23 Does your research involve deriving systems (e. g. avatars) that are capable of having or appearing to have emotions?

Yes No

- 24 If 'yes', do you and your colleagues find yourselves treating the system as a person (e. g., did you ever feel guilty towards your avatar when switching off your computer?)

Yes No

- 25 Do you see any other ethical implications of your research which are not included in the questions above?

Yes No

If 'yes', which? Please give details.

- 26 Did you discuss the questions raised in this section with the body or committee from which you seek ethical approval for your research?

Yes No

- 27 If 'yes', does this body or committee provide a particular code of conduct with regard to those questions?

Yes No Not sure

If 'yes', please give details.

- 28 What are the legal standards and obligations you operate on (such as the European human rights legislation, Helsinki Declaration, and national legislation, such as, for the UK, Human Rights Act, Data Protection Act, Freedom of Information Act, privacy laws, together with restrictions arising from contract law)? Please give details.

- 29 Do you rely on your own institution's in-house lawyers for legal advice?

Yes No

- 30 If 'no', who else or which other institution do you rely on? Please give details.

- 31 Do you think that there are weaknesses in your own adopted standards and obligations?

Yes No

If 'yes', please give details.

- 32 Can you think of any further standards of good practice that should be adopted in anticipation?

Yes No

If 'yes', please give details.

B. Statistics of answers

Q #	Options	Sum			
			8	Yes	21
1		24		No	3
2		23	9	a	5
3	Yes	5		b	16
	No	10		c	12
	Not sure	7		d	10
	details	5	10	Yes	0
4	Yes	2		No	10
	No	18		Not sure	2
	Not sure	3	11	1	17
	details	2		2	3
5	a	5		3	3
	b	3		4	0
	c	15		5	0
	assistance	2	12	Yes	19
6	Yes	5		No	6
	No	1	13		16
	Not sure	3		Yes	7
	details	5		No	10
7	1	8		Not sure	2
	2	8	14		9
	3	8	15	Yes	7
	4	0		No	1
	5	0		Not sure	8

16	a access	14		Not sure	3
	a interest	11		details	3
	b access	8	18	Yes	3
	b interest	11		No	12
	c access	2		Not sure	3
	c interest	2		details	2
	d access	3	19	Yes	8
	d interest	5		No	10
	e access	1		a	3
	e interest	5		b	1
	f access	1		c	4
	f interest	5	20	Yes	2
	g access	0		No	13
	g interest	1		Not sure	4
	h access	8		details	2
	h interest	11	21	Yes	6
	i access	2		No	9
	i interest	6		Not sure	4
	j access	6		Yes	1
	j interest	11		No	5
	k access	2	22	Yes	0
	k interest	1		No	14
	l access	0		Not sure	5
	l interest	2	23	Yes	14
17	Yes	3		No	4
	No	12	24	Yes	1

	No	13	28		10
25	Yes	3	29	Yes	14
	No	15		No	4
	details	3	30		4
26	Yes	3	31	Yes	4
	No	12		No	14
27	Yes	2		details	4
	No	3	32	Yes	6
	Not sure	0		No	11
	details	1		details	5