

# humaine

Emotion representation language

Requirements collected by

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slides compiled by Marc Schröder

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## Emotion representation language: Goals

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- ◆ define common emotion descriptions across WPs in HUMAINE
- ◆ compare data from different sources
- ◆ interface annotation and generation
- ◆ exchange emotion descriptions between modules in an ECA system
- ◆ ...towards a generally usable “standard”?

# Emotion representation language: Time line

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- ◆ Activity part of WP6, requiring links to WP3
- ◆ Time line:
  - ➔ First meeting in Paris, March 2005
  - ➔ Collection of scenarios/requirements, April 2005
  - ➔ **Discussion of requirements, May 2005 @ plenary**
  - ➔ Formulation of first proposal in XML, ... 2005

# Scope of “requirements” discussion

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## ◆ Content!

- ➔ what information is needed in what scenario?
- ➔ what makes sense to encode
  - from a theoretical perspective
  - from a user perspective

## ◆ technological realisation in XML will be worked out by small expert group

# Requirements for an emotion representation language

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Use cases:

- ◆ 1. Data annotation: labelling emotional behaviour in multimodal (real-world) data
- ◆ 2. ECAs: modelling various aspects of emotion in ECA system
  - ➔ 2.1 Behaviour interpretation: representations relevant for emotion recognition from multimodal input
  - ➔ 2.2 Behaviour generation: representations relevant for the generation of emotional multimodal behaviour

# 1. Data annotation: Requirements

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- ◆ emotion labeling
  - categories, dimensions, appraisals
- ◆ intensity
- ◆ temporal variation
- ◆ labeller confidence
- ◆ scope: time stretch vs. event, word, etc.
- ◆ combinations of emotions
  - blended, conflicting emotions
  - modality-specific annotation of expressed emotion
- ◆ attempt to regulate
  - amplify, simulate, attenuate, suppress or mask

# 1. Data annotation: Open questions

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- ◆ What is the nature of “blending”? Different from “conflicting”?
- ◆ Can annotators decide which modality / aspect expresses which emotion?
- ◆ How do we make sure that annotation can be done quickly?
- ◆ How can we ascertain high inter-labeller agreement?

## 2.1 ECAs: Interpretation of user behaviour (similar to 1. Data annotation)

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- ◆ emotion labeling
  - categories, dimensions, appraisals?
- ◆ intensity?
- ◆ temporal variation?
- ◆ labeller confidence
- ◆ scope: time stretch vs. event, word, etc.
- ◆ combinations of emotions
  - blended, conflicting emotions?
  - modality-specific annotation of expressed emotion
- ◆ attempt to regulate?
  - amplify, simulate, attenuate, suppress or mask

## 2.2 ECAs: Generation of system behaviour

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- ◆ emotion labeling
  - categories, dimensions, appraisals
  - mappings to different representations needed by different system components
- ◆ intensity
- ◆ temporal variation
- ◆ labeller confidence
- ◆ scope: time stretch vs. event, word, etc.
- ◆ combinations of emotions
  - blended, conflicting emotions
  - modality-specific annotation of expressed emotion
- ◆ attempt to regulate
  - amplify, simulate, attenuate, suppress or mask

**humaine** working group on emotion representation language

## 2.2 ECAs: Generation of system behaviour (not emotion-specific – ECA repr. lang.?!)

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- ◆ mapping from emotion intensities to behaviour intensities
- ◆ mapping from emotion labels to behaviours
- ◆ behaviour integration must not be text driven, i.e., allow for both verbal and nonverbal behaviour to be the lead for multimodal integration

# Discussion!

