humaine

Emotion representation language
Requirements collected by Brigitte Krenn & Hannes Pirker
slides compiled by Marc Schröder

Working group meeting at Plenary, 26.05.05
Emotion representation language: Goals

- 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”? 

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Emotion representation language: Time line

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

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

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

- 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

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1. Data annotation: Open questions

- 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)

- 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

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2.2 ECAs: Generation of system behaviour

- 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

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

- 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!

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