

humaine

WP 8: Communication and Emotions

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HUMAINE Second Plenary Meeting, MAY 2005, Newcastle

General motivation of WP

- ◆ help understand some of the critical issues for building persuasive, or otherwise emotion-inducing computational systems
- ◆ develop limited realizations that can be demonstrated as proofs of concepts in view of a novel class of systems

Features of WP 8

- ◆ computational, constructive approach
- ◆ mainly output, message production
- ◆ a unifying applied scenario and some specific prototypes
- ◆ groups form a community, share ideas, some components
- ◆ relation to potential applications

Major players

- ◆ Cantoche
- ◆ ITC-irst
- ◆ QUB
- ◆ Heriot-Watt University
- ◆ University of Augsburg
- ◆ University of Bari
- ◆ University of Haifa
- ◆ University of Paris 8

Full reports

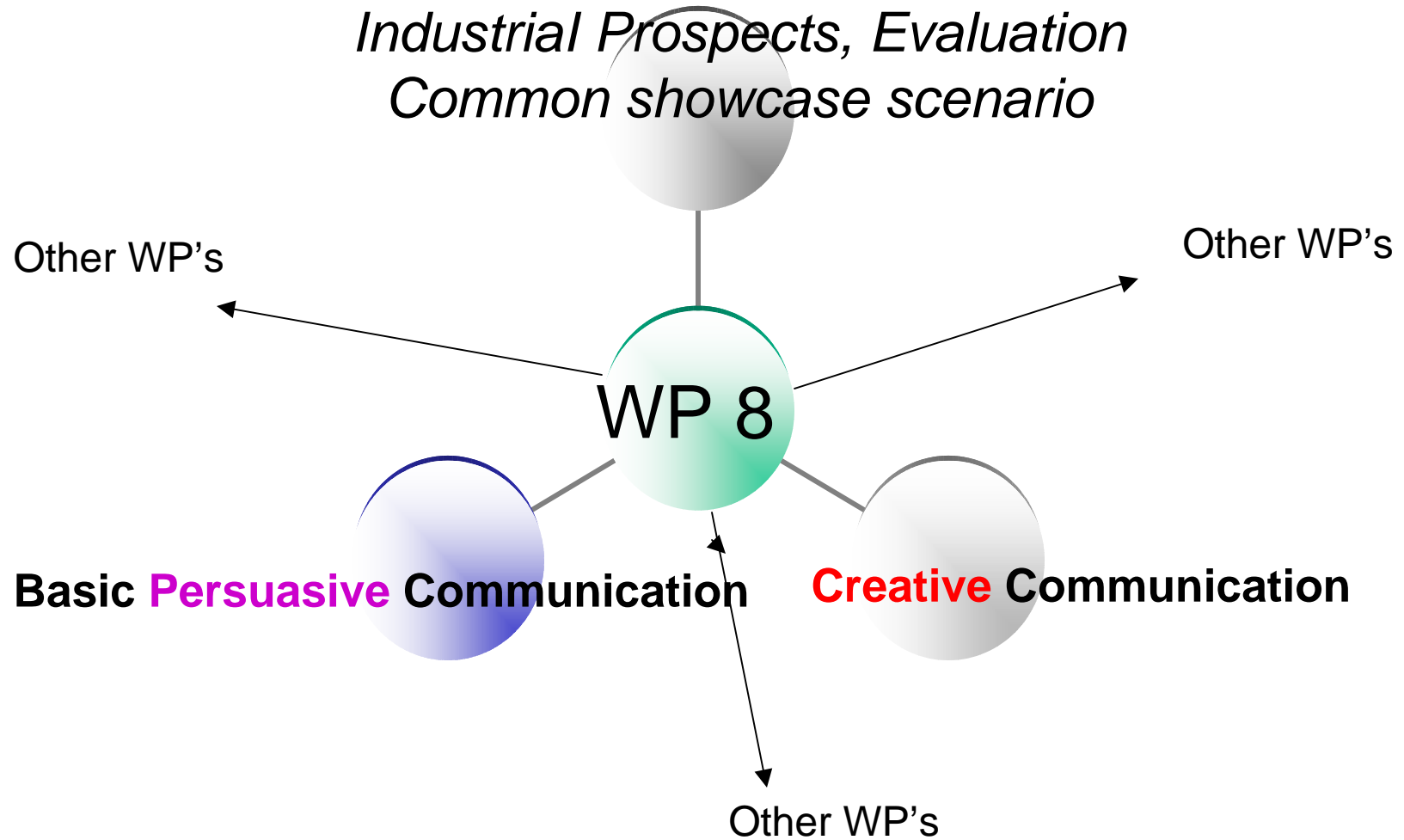
- ◆ D8b, delivered month 5
Preliminary plans for exemplars
- ◆ D8a, delivered month 9
Report on basic cues and open research topics in communication and emotions
- ◆ D8c, delivered month 11
Description of potential exemplars

D 8a

1. Persuasion: definition and human sciences approaches
2. Persuasion: computational issues
3. Computational humour
4. Lies and emotion
5. Emotions and politeness
6. Importance of the eyes and gaze
7. Narrative and story-telling
8. Response generation in dialogue systems
9. Describing the feelings that music communicates: a dimensional approach
10. Experimental issues: emotional expressions, humor and credibility in persuasion
11. Embodied conversational agents for persuasion in different applications
12. Applications of emotion-oriented systems: taking a long look

D8 c

*Industrial Prospects, Evaluation
Common showcase scenario*



Theme 1: Basic persuasive communication

- ◆ Persuasion Models
- ◆ Integrated model of emotion and politeness
- ◆ A mobile persuasive storytelling guide
- ◆ Gaze and eyes for persuasion

Theme 2: Creativity for communication

- ◆ Creative verbal humour testbed
- ◆ False emotions in true lies
- ◆ Music for persuasion

Common applied theme

- ◆ Industrial prospects
- ◆ Evaluation
 - ➔ *Effectiveness*
 - ➔ *Ethicality*
- ◆ Common Scenario for WP 8
 - ➔ *A campaign of communication for promotion with a variety of means and targets*

Applied scenario

Input: state of addressee; other contextual info

- ◆ Help persuade addressee to <do something addressee would not do naturally>
- ◆ Remember after time
- ◆ Enjoy the (communicative) experience and keep a positive feeling

Emotions in persuasion

- ◆ Emotions in persuadee/before msg-after msg
- ◆ Emotions in persuader/felt-displayed (possibly before and after)
- ◆ What strategies for different situations

Emotional multimodality in output

- ◆ realistic/cartoon-like appearance: face and gestures
- ◆ prosody
- ◆ natural language (from lexical selection on)
- ◆ directness-indirectness (gaze, language form)
- ◆ music
- ◆ kinetic typography
- ◆

Creativity for communication

- ◆ expectation and surprise
- ◆ ambiguity
- ◆ deception (lies, humor)
- ◆ pleasure and aesthetics
- ◆ specific role of language

Creative Verbal Humour Test bed (CHT)

- ◆ main goal: creation of humorous headlines (newspaper headlines and advertising slogans)
- ◆ allows to explore text-manipulation for emotional communication and persuasion
 - verbal emotional charging
 - nonverbal emotional expression
- ◆ strategies employed
 - **1. Slanting**
 - **2. Computational humour**
 - **3. Kinetic typography**

1. Slanting

- ❖ We express our feelings through our choice of vocabulary. Words reveal our emotional attitude toward the subject in addition to the factual information.
- ❖ Slanting consists of a choice of words that will elevate or denigrate the subject in the minds of the readers.

Elevating diction	Neutral diction	Degrading diction
Jan's a physician	Jan's a doctor	Jah's a quack
Jan's an attorney	Jan's a Lawyer	Jan's a shyster

- ❖ Our approach to slanting is limited to the choice of emotional evaluative predicates, according to headline topic and to the emotion to be expressed or evoked.

2. Computational verbal humour

- ◆ strategies that produce surprise on individual (not now)
- ◆ infringing people expectations, playing with model of collective imagination.
Common sense knowledge and language Large scale.
Resources such as OpenMind, WordNet, emotion dictionary, proverbs, idioms, rhymes & pronunciation etc.
- ◆ *familiar expression variation*
(e.g. a proverb or a famous movie title)
- ◆ *allusion*
ambiguity

3. Kinetic Typography

- ◆ text animation for emotional communication
- ◆ expressive kinetic display of text: mimicking typical movement of humans when they express the content of the text

a vocabulary of text animations for the generation of multimodal affective communication

- ◆ CHT with production of text and animation

Research towards the exemplar

- ◆ Internal workshop in October 2004 helped a lot
- ◆ Attended by 14 representatives of all relevant partners in WP8
- ◆ After that, research has moved on clearer rails

Connections with other WP's

◆ WP 3

- ← function of emotion in persuasion
- ← Data and theories about collective emotions induced through mass communication

◆ WP 4

- ← Gaze as an indicator of emotion

◆ WP 5

- corpus on polite interactions
- corpus on interactions with an ECA
- ← corpus on H/H persuasive interactions

Connections with other WP's (cont'd)

- ◆ WP 6
 - ← ECA's
 - ← → specification for humour and persuasion in representation language
- ◆ WP 7
 - ← Models of emotion activation and emotional decision making
- ◆ WP 9
 - ← → Evaluation criteria for persuasive and creative msgs
- ◆ WP 10
 - Ethical issues in persuasion by an artificial agent (individual and mass communication)

Achievements

- ◆ Definition of area of activity, through the delineation of the exemplar, and building of a community.
- ◆ Exchanges and integration of experiences.
- ◆ Focus on specific goals within the very large area of emotions and communication.
- ◆ Advancement toward the definition of a concrete and realistic set of expected results and milestones.

Difficulties

- ◆ Set up of a common vocabulary of relevant terms
- ◆ Understanding what is not realistic for a project of this kind
- ◆ Identifying concrete and realistic goals
- ◆ Have people work constructively toward an integrative project with the scarce resources available.

Planned Deliverables

◆ Deliverables

- ➔ D8d Proposal for exemplars & work toward them
Report, Month 22, effort 50 p*m
- ➔ D8e Workshop Proceedings (WP workshop in
Trento on november 2005)
Month 25, effort 24 p*m
- ➔ D8f Report on progress on Techniques for
persuasive communication
Report, Month 29, effort 22 p*m