

# humaine

Second plenary meeting, May 2005:

Introduction

# Welcome to Newcastle

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- ◆ **To the East,**
  - the Irish Sea
- ◆ **To the West,**
  - the Mourne mountains
- ◆ **Around us**
  - an extended family
- ◆ **Behind us**
  - 17 successful months
- ◆ **Ahead**
  - 2 busy days ...

# Welcome to Newcastle

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➔ ... and a briefing from Ellen on practicalities

# Part 1:

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## ◆ Overview of the position

# Overview of the position

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- ◆ The first 18 months
  - The fundamental priorities have been
    - ➔ Information exchange
    - ➔ Consolidating the thematic areas
    - ➔ Establishing effective links between them
    - ➔ Agreeing the exemplar(s) that would be the focus for each
- ◆ The next 24 months
  - The fundamental priorities will be
    - ➔ Active work on exemplars
    - ➔ High profile dissemination
      - through special sessions, the handbook, etc.
- ◆ The function of the plenary
  - is to make sure the transition is effective.

# Making sure the transition is effective

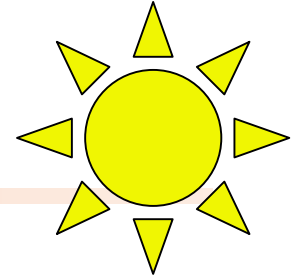
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To do that, we need

- ◆ Broad shared understanding of the project's shape
- ◆ Detailed programs for individual workpackages
- ◆ Proper awareness of wider issues
- ◆ Good morale (which we have every right to)

## Reasons for good morale: output

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We delivered all our deliverables  
(and they are a real resource)

We influenced scientific and lay communities: in 2004

◆ *Scientific publications* n=119

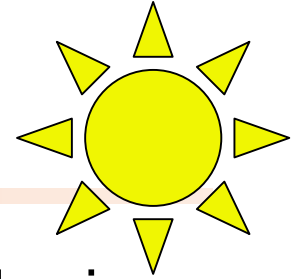
◆ *Relevant academic events*  
*organised by HUMAINE members* n=19

◆ *Other public publications*  
*(mostly press coverage)* n=22

We developed a website that is breathtaking in scope  
and gets 400 hits/day from around the world.

Reasons for good morale:  
genuinely interesting advances already

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WP3 model links between attention & emotion in brain

WP6 analysis of importance of attention for ECAs

WP4 new types of cross-modal analysis

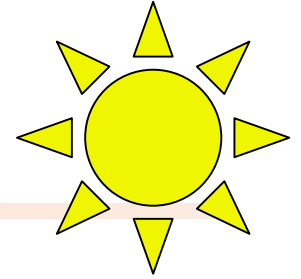
- ◆ face, words, prosody
- ◆ prosody, physiological signals

WP5 analysis of data from everyday emotion

- ◆ and development of coding schemes adapted to it

## Reasons for good morale: genuinely interesting advances already

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WP 7 showed us a basic example of emotional behaviour from ethology – ‘imprinting’ – emerging from deeper principles

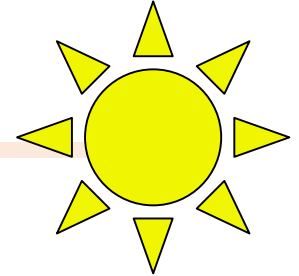
WP 9 have developed astonishingly ingenious ways of conveying your emotions without resorting to words

WP 8 set out basis for an artificial system to have own inbuilt ethical code

WP 10 teased out information about our own ethical codes that you should read in private

## Reasons for good morale: review

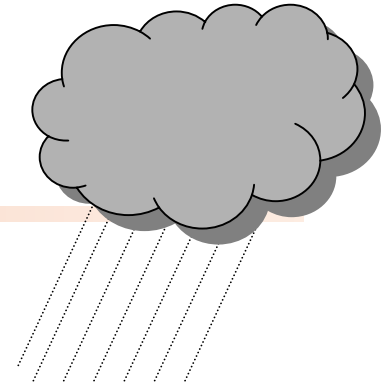
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- ◆ HUMAINE is reviewed every year
  - ➔ to approve last year's work & next year's JPA
- ◆ The review of 2004 took place in March
- ◆ We submitted 6 end of year reports
  - ➔ (about 300 pages)
- ◆ And spent 2 days with 3 expert reviewers & PO
- ◆ Informal feedback is positive
  - ➔ but ...

## Good position ... with qualifications

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Still to get official confirmation

- ◆ until that we can't
  - ➔ finalise next year's JPA
  - ➔ amend the contract to include it
  - ➔ officially add new members
  
- ◆ the advance for next year won't be paid
  - ➔ and the last advance has run out for a lot of us
  
- ◆ I spoke to the Unit office yesterday, but ...

## Good position ... with qualifications

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- ◆ There is a new head of unit
- ◆ We will be asked to set more 'measurable' objectives
- ◆ He has different emphases, stressing
  - IPR (so I will be in Luxembourg on Monday)
  - dissemination to influential non-academic groups
    - I will talk to people about our 'high quality public deliverable'
- ◆ We are expected to initiate new bids

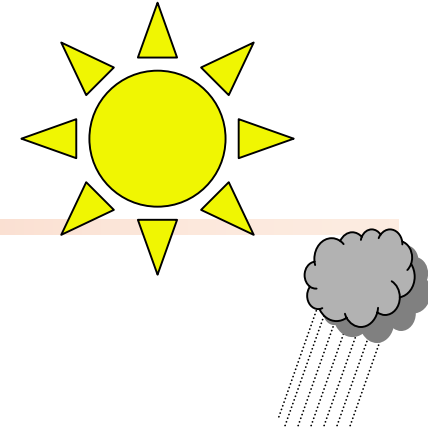
## But with those qualifications

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We expect no radical changes to the JPA,

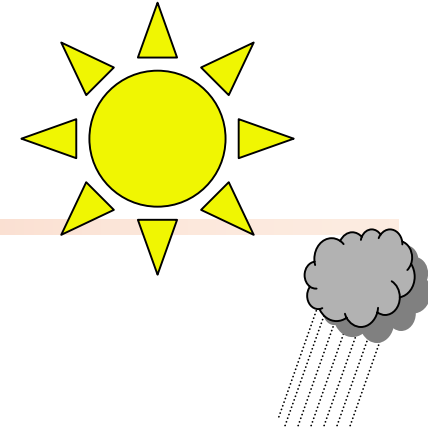
So, we need to know what we promised,

and make sure it happens.



## Part 2:

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### ◆ Overview of the JPA

## The updated JPA: new members

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Institution	Country	Associated WP	Type of support
Leeds-languages	UK	WP9	connection
USC	USA	WP3	case-by-case
FER (Zagreb)	Croatia	WP4	connection
CNRS STIC-SDV EPML 38	France	WP7	connection
ISTC Rome	Italy	WP8	connection
Sheffield	UK	WP6	connection
Twente telematics	Netherlands	WP5	comprehensive

Each new partner

- is associated with a workpackage
- and meets a need within it

# The updated JPA: distribution of effort

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Scale of commitment to a WP (person-months)	Number of such commitments in plan for months 1-18	Number of such commitments in plan for months 13-30
0-1	37	10
1-4	55	29
4-9	26	17
9-16	12	13
16-25	5	10
25-36	3	4
36-49	1	1

The pattern of commitments has shifted

- initially ‘distributed’
- now more ‘focused’

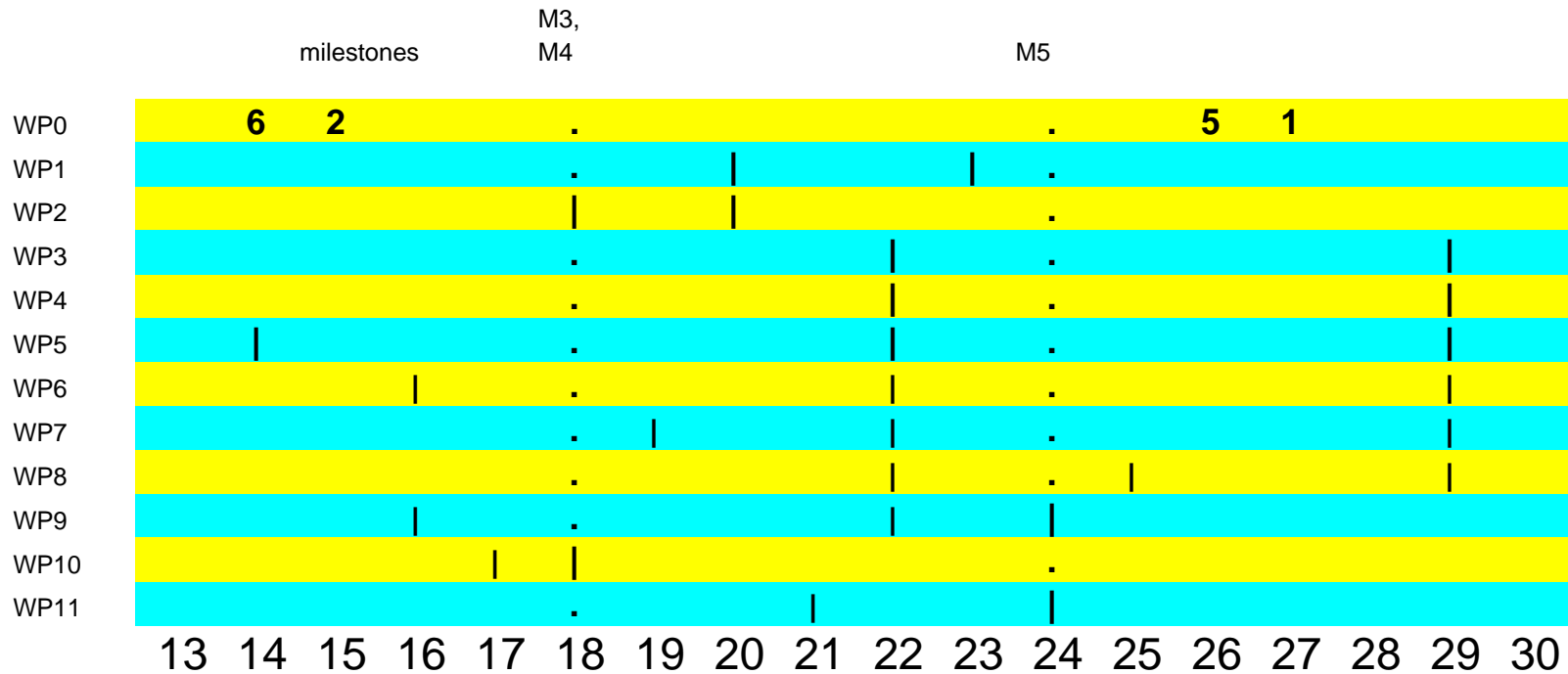
## The updated JPA: support actions

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- ◆ 57 'support actions' are listed in the draft JPA
- ◆ They generally involve limited effort by experts in the field, but make a substantial difference to the group providing the support.
- ◆ The first is to establish a yearly cycle of agreeing support actions

# The updated JPA: milestones & deliverables

- ➔ Simplified deliverable structure
  - in line with December Luxembourg meeting



# The updated JPA: other issues

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- ◆ Completing workshop cycle
- ◆ Strengthening dissemination
  - ➔ through the handbook, special sessions, etc.
- ◆ Developing interchange program
- ◆ Continuing expansion of the network
  - ➔ towards our long term future as a voluntary association

## Part 3:

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◆ **The bottom line -  
progress we have promised  
in months 18-30**

# The bottom line: WP1

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‘Autumn Academy’ 2005 organised by GERG (with Swiss Society of Psychology) to include

- ◆ Debate between major theorists
  
- ◆ Sessions on
  - ➔ Neurophysiology of emotion: principles and hands-on experience of measurement
  - ➔ Computational models of emotion
  - ➔ Facial and vocal expression of emotion

# The bottom line: WP3

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## ◆ Key achievements by month 30:

- Preliminary computational model of appraisal checks
- Extended toolbox
- Preparation of acted stimuli for sensitivity experiments
- Tables of key emotion words for different contexts
- Grid of emotion concepts

## The bottom line: WP4

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### ◆ **Key achievements by month 30:**

- ➔ Aibo database available under CEICES scheme
- ➔ comparison of intra-HUMAINE speech recognition schemes through CEICES
- ➔ Preliminary systems for extracting FAPs / visemes / gaze in temporal domain
- ➔ Preliminary systems for extracting arm / wrist / hand movement
- ➔ Identify most relevant physiological features
- ➔ Formulate major models of multimodal integration

# The bottom line: WP5

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## ◆ **Key achievements by month 30:**

- Extended database register
- Pilot collection of induced multimodal data
- Provisional multi-level labelling scheme for emotions developed
- and applied to
  - naturalistic data (existing)
  - induced data (to be collected)

# The bottom line: WP6

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- ◆ **Key achievements by month 30:**
  - ➔ Outline required characteristics of Representation Language
  - ➔ Description of overall architecture for Affective Interaction ECA
  - ➔ Define 'proof of concept' applications for ECA to demonstrate capabilities based on SAL

## The bottom line: WP7

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- ◆ **Key achievements by month 30**
- ◆ Analysis of assumptions in existing computational models of emotion at four levels
  - ➔ Embodied robots
  - ➔ Classical AI
  - ➔ Configurational system
  - ➔ Social model
- ◆ Analysis of gaps in the way existing emotion models can address decision-making problems
- ◆ Proof of concept for designs that address these gaps using the four types of model

## The bottom line: WP8

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- ◆ **Key achievements by month 30:**
- ◆ Analysis of the role of emotions in aspects of persuasion and creative communication
- ◆ Acquisition and creation of resources for emotion related language processing
- ◆ First version of prototypes: a persuasive system, a polite convincing agent and an environment for creative humorous headlines
- ◆ Theory of an ethical autonomous persuasive agent

# The bottom line: WP9

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## ◆ **Getting feedback on users' affective interactions with systems**

- ➔ Key methods are:
  - Modified WoZ-method for ECAs
  - Modified Think-aloud method
  - New “sensual” feedback method based on colours and shapes
  - A set of user-centred methods for brainstorming, early evaluation
- ➔ The methods will be applied to:
  - Paiva's story telling agent
  - Pelachaud's character-based exemplar
  - Imperial's rumour-based agent society
  - KTH interactive narrative scenario
  - eMoto system with gestures and colours/shapes/animations
  - .. and possibly others.

# The bottom line: WP10

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- ◆ **Achieving a shared understanding of ethical dimension**
  - ➔ plenary meeting will be a key opportunity
- ◆ **Develop a cohesive approach to the ethical issues**
  - ➔ Methods have to be found to order the multiplicity of ethical issues that arise, including division between areas where procedure is enforced by law, those where clear prescriptions can be made, those where local culture is critical, and those where there are dilemmas that must be resolved on an individual basis.
- ◆ **Interim report on prospects for establishing standards**
  - ➔ will follow an open discussion at the plenary session

## The bottom line: WP11

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- ◆ **Preassemble output suitable to form a basis for the handbook**
  - ➔ Appropriate papers from workshops and sections from deliverables will be collected in electronic form as they appear on the portal and made available for use and comment by HUMAINE members
  - ➔ Co-ordination with major publishing activities at WP level
  - ➔ Appointment of area editors
  - ➔ Develop proposal for progressing the handbook to publication

## Part 4:

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◆ **How?**

# How?

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- ◆ Shared understanding of goals
  - ➔ between and within workpackages
- ◆ Closer links between
  - ➔ WP leaders
  - ➔ Teams involved in their area
- ◆ Effective use of interchanges

- all things we need to lay groundwork for in this plenary

# How?

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- ◆ ...and a lot of mutual appreciation

Remember:

- ◆ the best there is
- ◆ at what we do
- ◆ is us

(you know what I mean)

