

## **NESTCOM**

What it Means to Communicate

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# Special Issue of Neural Networks: "Multimodal communication and what it means to communicate" (WP6)

## **NESTCOM Report 8**

### Deliverable 6

Stefan Wermter, Michael Knowles, Martin Page, Vittorio Gallese and Friedemann Pulvermuller

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Project Co-ordinator: Professor Stefan Wermter

Project Co-ordinator Organisation: University of Sunderland

Partners: University of Sunderland, Medical Research Council, Universita degli Studi

di Parma



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New and emerging science and technology

#### **CALL FOR PAPERS**

"Multimodal communication and what it means to communicate"

Special Issue of Neural Networks

The general aim of this special issue is to focus on "What it means to communicate" and to understand the neural, cognitive, formal, computational and developmental features that have led to communication differences between humans and animals. A number of interesting and successful research directions have been explored including learning by imitation, examining the origin of human rule based reasoning, studying the neural origins of language, exploring the evolutionary origins of the human mind, researching into verbal and nonverbal communication, using and interpreting signs, characterising human language by structural complexity, and representing abstract concepts. To complement this, computation and neural robotics aims to explore a multimodal understanding of verbal and visual communication for embodied action understanding leading towards formal models of knowledge representation and reasoning.

We are looking for submissions in the areas including:

- \* Neural network models and theories for communication
- \* Knowledge representation and hybrid models for communication
- \* Plausible reasoning and uncertainty in communication
- \* Multimodal integration and crossmodal neural models
- \* Formals models of human communication
- \* The role of neurally grounded emotion in communication
- \* Bioinspired communicating agents with reasoning
- \* Neuroscience-inspired robots and communication
- \* Communicating agents with an understanding of emotion
- \* Developmental approaches to communication
- \* Neural networks and imitation
- \* Neural approaches to sign and gesture
- \* Mirror neuron system and multimodal integration
- \* Embodiment of communication and action in robots
- \* Language and action circuits
- \* The role of formal memory in communication

Co-Editors:

Stefan Wermter (University of Sunderland) Vittorio Gallese (University of Parma) Friedemann Pulvermuller (MRC, Cambridge) John Taylor (King's College, London)

#### Submission:

Deadline for submission: May1, 2008 Notification of acceptance: August1, 2008

Deadline for submission of revised papers: October1, 2008

Notification of final acceptance: November1, 2008

#### Format:

see papers for the journal Neural Networks.

http://www.elsevier.com/wps/find/journaldescription.cws home/841/description

#### **Submissions:**

To be sent to: Stefan Wermter as pdf files at the address below

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Professor Stefan Wermter Centre for Hybrid Intelligent Systems School of Computing and Technology University of Sunderland St Peters Way Sunderland SR6 0DD United Kingdom

Phone: +44 191 515 3279 fax: +44 191 515 3553

email: stefan.wermter AT sunderland.ac.uk

http://www.his.sunderland.ac.uk/~cs0stw/

http://www.his.sunderland.ac.uk/

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