**ARCo**

**PARTICIPANT FORM for the SUMMER SCHOOL**

**Constructivism and Enaction**

**A new paradigm for Cognitive Science**

<u>**FIRSTNAME**</u> **:  Dominique**          <u>**NAME**</u> **: FREARD**

## I. – <u>SITUATION</u>

**Status :** ☐ University teacher     ☐ Research scientist     ☑ Thesis student     ☐ Post-doc     ☐ Other :

**University/ Laboratory :**          **Université Rennes 2 – laboratoire CRPCC / LEI**

**Website labo/perso :**          **http://www.uhb.fr/sc_humaines/crpcc/**

**Special information(s) (article, scientific responsability, participation to research projects, other…) :**

## III. – <u>RESEARCH THEME</u>

*Please indicate briefly (10 lines max) your themes of research, and 4 or 5 key words*

Theme: Constitution of a predictive model of mental overload and its distribution in multimodal environment. Keywords: Mental workload, dialogue systems, multimodal interaction, adaptive interfaces, user modelling.

My researches aim to identify the determinants and indicators of mental overloads during the interactions between a user and a dialogue system. It is known that dialogue systems are very costly for users and often rejected for this reason. It is necessary to understand communication process and principles of co-action to address this problem. Modelling cognitive cost could orientate on functioning alternatives to choose during interaction to facilitate dialogue. Implications deal with adaptive behaviour of the interface to improve quality of interaction, user satisfaction and usability.

## III. – <u>VIDEOS AND EXPERIMENTAL MATERIAL</u>

*Moments of relaxation might be the occasion to share and show original scientific video documents (not too long) or experimental material (which could be used by all the participants).  A video party and an experimental demonstration session have been planned. Could you indicate video or experimental material you would like to present.*

**Videos** : No

**Experimental demonstration** : Possible

The material I am using is built for Wizard of Oz studies. It is developed with Macromedia Director (this format is close to Flash) and because it's a sound format it can't be showed here. The duration of a dialogue with the system is about 2 minutes. Perhaps I could prepare a 5 minutes demonstration (it is necessary to locate the kind of service tested). It is also possible to select a few representatives dialogues recorded in experimental context to show the variability of behaviour in front of this material…