

CommEST – Communicability Evaluation Support Tool

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Luciana Salgado, Clarisse de Souza

Introduction (1/2)

The Semiotic Engineering Research Group (SERG) at PUC-Rio has **Semiotic Engineering** as its theoretical reference for several of its HCI research topics.



Semiotic Engineering is an IHC theory that views human-computer interaction as a particular case of computer-mediated **metacommunication** [de Souza, 2005].



Through **metacommunication** computational systems designers communicate with users to tell them how, why and what for users can communicate with the system in many situations.

Introduction (2/2)

Semiotic Engineering has different kinds of epistemic tools.

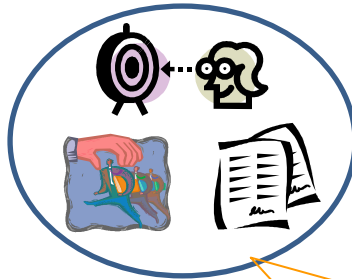
**This work focuses on the
Communicability Evaluation
Method (CEM)**

**The main goal of CEM is to evaluate the
quality of communication
(**communicability**) from designer to user,
through interface, at interaction time.**

CEM – Communicability

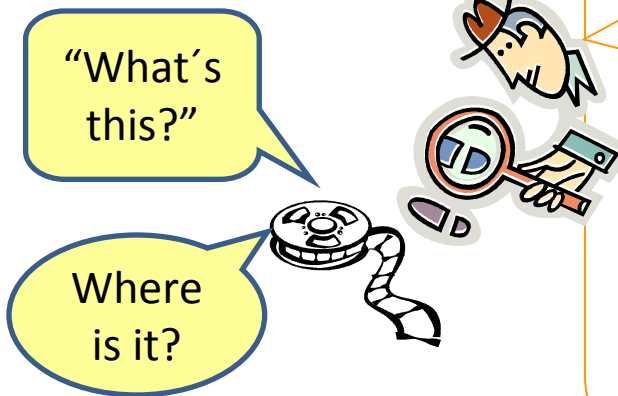
Method

Test Preparation



It's an attempt to retrieve the original designer's metacommunication, that is, the meaning of designer-to-user metacommunication. In it an in-depth characterization of the designer-to-user metacommunication is achieved.

Tagging



The first activity is tagging. The evaluator interprets the application in order to interact with the preliminary communicability utterances. The tagging process consists of "putting words in the user's mouth". Then, he selects the basic portions of the communicability utterances, which will be used to characterize breakdowns in the expected system communication. Souza, 2005, and a plausible enriched scenarios for test activities that he is going to observe.

The evaluators consolidate the Semiotic Profile. The tagging process secures the means through which the participant registers the problems and identifies the main interaction problems. The evaluator registers the patterns, which are then used to observe the display of the problem and thus of its solution. [Probst et al., 2000]

- After that, the evaluator conducts a post-test interview.

Slide 4

A1

CEM consists of 5 steps.

The First two are very similar comparing with other users observation methods.

They are the test preparation and test application steps.

In the first one, for example, the evaluator...

- prepares use scenarios

- elaborates questionnaires and/or interview scripts, consentment term

- etc.

Alex, 9/9/2007

Motivation

- The method presents challenges that cause difficulties for its dissemination:
 - Complexity in the application of the method:
 - Steps combination;
 - Experience in the application of the method;
 - Knowledge of Semiotic Engineering.
- } Fundamental Requirements
- Semiotic Engineering and CEM expertise are concentrated at SERG;
 - Teaching and learning difficulties with qualitative methods.
- Hence, we found the opportunity of its dissemination through the teaching of the method in the HCI subjects with the help of a computational tool.

CommEST (1/3)

- CommEST metacommunication: supports the teaching and learning of the method.
- Target users: learners and teachers.
- Expected Benefits:
 - to present CEM as proposed by its creators;
 - to facilitate the teaching of the method;
 - to help students learn the method.

CommEST (2/3)

- Let's see in main screen of CommEST some metacommunications signs.



Projects

- General
- Test Preparation
- Test Evidence
- Tagging
- Interpretation
- Semiotic Profile
- Final Report

ICDL - 20/03/2007

SpiderPad - 31/01/2007

PowerPoint - 11/12/2006

CommEST - 07/12/2006

RealPlayer - 02/09/2006

TvDigital - 01/09/2006

Project's Name:

Abstract:
A avaliação do Spider Pad será feita para ilustração das etapas de Etiquetagem e Interpretação do método de avaliação de comunicabilidade.

Author Profile:

Authors:
Professor
Aluno

Edit...

Add...

Remove

Annotations...

Open Remove

Application:

New Application...



Reminders

The **Communicability Evaluation Method (CEM)** is achieved through the following steps:

Preliminary Steps

[Test Preparation](#)

User Observation

[Test Application](#) ☹

[Test Evidence](#)

Analytical Steps

[Tagging](#)

[Interpretation](#)

[Semiotic Profiling](#)

Final Step

[Final Report](#)

By following the above links, you will find checklists to guide you through CEM steps.

☹ This step is not supported by CommEST.

projeto ICDL

Luciana Salgado
Ana

Edit...

Add...

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Annotations...

New Application...



New Project...

Projects

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CommEST - 07/12/2006

RealPlayer - 02/09/2006

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Open

Remove

Final Report Documents

C:\CommEST\Projects\SpiderPad\FinalReport

Final Report.doc

Open...

Upload...

Remove

Templates...

Use scenario of CommEST (1/3)

- Let's imagine an use scenario of CommEST:
 - Daniel is an IHC professor and he is teaching CEM. Next class, he will practice the application of CEM with his students at a lab.
 - So, Daniel prepared CommEST to be used by the students during the Tagging, Interpretation and Semiotic Profile Steps.

Use scenario of CommEST (2/3)

- Firstly, Daniel chose a software to be evaluated: SpiderPad, an HTML editor.
- Secondly, Daniel elaborated a scenario to show aspects from the user's experience with SpiderPad.
- Then, Daniel recorded an interaction with SpiderPad with two problematic tasks.
- After that, Daniel created an evaluation environment of SpiderPad using CommEST.

Use scenario of CommEST (3/3)

- Let's see what happened during the class.
[ExercíciodoMAC.avi](#)

Evaluation of CommEST

- Through interviews with HCI professors.
- Quick and Dirty evaluation with a post-graduation student.
- Communicability evaluation with undergraduate students.

Evaluation of CommEST – with professors

- Some results:
 - The designer-professors metacommunication meets the professors' expectations;
 - Some re-design suggestions (some of them had already been made);
 - The need of on-line help;
 - The need of an interface in Portuguese.

Communicability Evaluation of CommEST – with students

- Some results:
 - Most of the identified problems were about navigation (“Where is it?”) and meaning assignment (“What’s this?”);
 - Most of the tags happened during tagging creation;
 - The students almost always had doubts about the meaning of the tag and difficulty in choosing the appropriate tag;
 - The students didn’t notice some available signs during tagging stage.

Primary Contributions

- To facilitate the communicability evaluation through CommEST.
- To favour the consolidation of CEM's learning at HCI Brazilian and foreign courses.
- To stimulate the creation of knowledge base by registering evaluations at CommEST and making them available in its distribution.
- To allow CEM's teaching and learning to be done in an organized way and according to the proposed philosophy of the method's creators.

References

1. de Souza, C.S.: The Semiotic Engineering of Human-Computer Interaction. Cambridge. The MIT Press (2005)
2. Prates R., de Souza, C.S., Barbosa, S.: A Method for Evaluation the Communicability of User Interfaces. Interactions, 7 (1) (2000) 31-38
3. Preece, J., Rogers, Y. and Sharp, H.: <http://www.id-book.com/>. Última visita em 07/07/2007
4. Preece, J., Rogers, Y. and Sharp, H.: Design de Interação – Além da interação humano-computador. Porto Alegre. Bookman (2005)

Thank you!